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PART I.—ESSAYS, MONOGRAPHS, AND CASES.

Clinical Lectures on Some of the Principal Diseases of the Eye.

Delivered at the New York Medical College, 1855. By
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GENTLEMEN: Having explained to you the manner in which objects are depicted on the retina by the way of refractions of the light-rays through the dioptic media of the eye, a process based on pure physical and optical laws, you will easily comprehend the possibility of an alteration in the formation or perception of such an image, founded on the insufficiency of accommodating the eye to various distances, or on the incompetency of appreciating the excitement produced on the retina. In the present, as well as in many other similar cases, which you have the opportunity of examining here, you perceive but a few objective symptoms—in fact, with the exception of the enlarged ciliary vessels, you scarcely observe by the naked eye any other morbid appearance, whereas the subjective symptoms concentrated in the weakness of sight the patient complains of, are certainly serious enough to attract the patient's and your attention.

In consequence of the impeded faculty of accommodating the sight to objects situated at various distances, the same may appear for a certain length of time as they really exist, but soon

they will appear confused, dull, as if covered with a mist. If, during writing, reading, or any other occupation requiring accommodation to closely situated objects, the exertion of seeing is continued, the eye becomes tired and painful, redness and lachrymal suffusion comes on.

Presbytic amblyopia, or kopiopia, develops itself in presbyopic persons by a continued exertion of the accommodative powers to fix near and small objects. In individuals from ten to fifteen years of age, it supervenes if the occupation is assiduous and fatiguing. It develops itself slowly; at first, fatigue is felt in the eye, and want of accommodation is felt after a protracted occupation.—mostly, therefore, in the evening; objects then cease to be seen for a moment. In the beginning the sight is reestablished if the work is removed to a longer distance; subsequently the occupation has to be interrupted, momentarily, to regain the power of accommodating and fixing the objects. It is characteristic of this kind of kopiopia, often met with in literati, miniature painters, engravers, jewellers, watchmakers, painters, tailors, and seamstresses, that, in commencing the occupation, the patient sees perfectly well, and after a lapse of time is surprised by a dimness, called, commonly, blur; the sight remains the longer clear, the shorter the time of occupation requiring the exertion, has been. If the affection develops itself more, the interval of clear sight is shorter; and whereas cloudiness supervened at first after some hours' work, it may subsequently annoy even after a few minutes exertion. Convex glasses benefit this kind of weakness of sight, and allow the continuation of the occupation. If the occupation is continued without the use of glasses, the dimness and incapacity of accommodating increases, and recurs in so short an interval, that no occupation is longer possible; the feebleness of sight becomes almost a permanent one, and may terminate with amaurosis. It is evident that in this seamstress protracted accommodation by steady sewing, in cloudy as well as in very bright days, and often at night by artificial gas light, causes the disturbance of sight complained of. Abstinence from all occupation requiring close accommodation, or at least to diminish the time of such, will be a chief indication. Many varieties, however, occur, of presbytic amblyopia; in some of

which spectacles are of benefit, and in others they are useless, and often injurious.

Presbytic amblyopia may degenerate into acquired myopia, complicated with amblyopia.

Not seldom the focus of both eyes varies, and the one may be presbytic, whereas the other proves to be myopic. In similar instances the diameter of the pupil is in both eyes a different one. Dilatation of the pupil in the one, and comparative diminution in the other, will frequently be observed. Besides, the light acting on the retina immediately, and by its means on the sphincter iridis, the will itself influences both muscles, sphincter, and dilator, and many pathological conditions influence the dilatation or contraction of the pupil.

Considering the influence of light on the pupil, we observe its effect in the impressibility, sensation and motion. The degree of light is felt, together with pains or comfort, and the diameter varies. By the impressibility, and the sensation, the mind is forced to representations. The movements of the iris may, therefore, be either direct ones produced by the influence of light, or indirect ones, caused by the representation subsequently created. The diameter of the pupil depends upon the intensity of the light, or an illuminated body, and the extent of the retina acted upon. The magnitude, or size of the image formed on the retina, depends upon the magnitude of the angle of vision, which diminishes with the distance of the object, and with it diminishes also the size of the retinal image, consequently the extent also of the excited retinal surface. But if the excitement is produced on a more extensive surface of the retina, the influence which it may have on other nervous parts must increase. Those parts are the corp. quadrigemina, and the fibres of the iris, provided by the oculomotory nerve, proceeding therefrom. Therefore, with the greater distance of an illuminated body, will the effect upon the sphincter iridis proportionately diminish, that is to say, the contraction of the pupil and the dilatation, will result. When near objects are looked at, the pupils will contract, at the same time the eyes will turn inward, and dilate when the objects are removed to a greater distance. As we see only by the centre of the retina, we try to turn the eyes in such a way as to allow the objects looked

at to fall on the most sensitive spot, which is effected by turning them inward when near objects are fixed, and outward when distant ones are looked at.

The pupil contracts, therefore, by fixing near objects, and dilates by looking at distant ones,* for three reasons: 1. Because of the simultaneous movements inward, when fixing near objects. 2. Because of the contraction of the sphincter pupillæ that accompanies the accommodation. 3. Because of the relation between the size of the excited retinal surface and the intensity of the excitement produced on the oculomotory nerve.

The Influence of the Will on the Activity of the Iris.

DILATATION OF THE PUPIL.—Entering a perfectly dark room, complete obscurity prevails, and gradually it becomes lighter and lighter. Thus Boyle† observes, that a man enclosed during the reign of Charles I. in a dark cavern in a wall, without windows, began to observe, after a few weeks, some light, and subsequently could distinguish the parts of his bedstead, and ultimately even the mice, that came to carry the bread-crusts from his hole. In darkness a dilatation of the pupil takes place, and by it increases considerably the quantity of admitted rays of light. But if the dilatation of the pupil was dependent directly and only upon the darkness, it would not last so long as it does before we begin to see in the dark. On the contrary, we should have to see more in the beginning, because the darkness causes no pains, and if it was an excitement produced in the sympathetic nerve, it would be natural that the excitement should be the greatest in the first instance, and diminish subsequently. But any one observing himself in the dark, may notice and convince himself that in the dark the desire for seeing increases more and more, and with it the possibility of seeing. This desire must therefore be considered as the excitement forcing the central parts of the sympathetic nerve into activity.

A more instructive case, interesting in many points of view, compels me to abridge my remarks on this patient.

* In dogs the contrary takes place.

† Porterfield on the Eye.

The patient now before you offers, to her discomfort, a multitude of morbid symptoms, aggravated by painful subjective ones. The impression that intrudes upon the observer by the aspect of the head of this elderly woman, is certainly not calculated to hasten the observer to the examination of the eye, without eliciting previously some hints for the formation of the diagnosis from the eruptions marking the forehead, and announcing a constitutional disease of rather a suspicious nature. The candid confession of this unfortunate woman, whose husband, as she asserts, communicated to her some twelve years since a disease from which she has never been entirely free, will corroborate the opinion that even a less close observer must form by glancing at the eczema, which, with its papulæ and nodes on the different parts of the forehead and hairy scalp, presents so characteristic a specimen of a syphilitic eruption, of different secondary forms grouped together. Thus prejudiced in favor of a possible syphilitic complication, we may proceed to examine the organ of sight.

The more prominent symptoms concern the left eye, although the right one cannot be pronounced entirely free from morbid appearances.

An increased resistency, injection of the dilated ciliary vessels densely ramifying around the cornea, the dark blue appearance of the sclerotica in advanced age, and the small elevations in the ciliary region, produced by the dilated tortuous vessels of the choroid; the wide dilatation of the pupil, the immobility of the iris by the different degrees of light, the sea green discoloration of its background—the examination by the eye-speculum showing a brown unequally-diffused color, grayish-blue masses in the vitreous body, covering the entrance of the optic nerve, as well as some of the vessels, with a mist, whereas the ramifying arteries and veins visible by the movements of the eye in the different directions appear abnormally increased in their diameter, and the retina itself covered with grayish patches, more on the outer than the inner half, corresponding with the greater protuberances of the choroid coat—all these taken together form the objective symptoms. The entire and absolute want of impressibility of the retina, even by the strongest light, the appearances of light and different colors constantly

annoying the patient, the supra-orbital pain frequently recurring and lasting for hours, constitute the subjective symptoms of this disease, that eminently shows the affection of the choroid coat as well as of the retina and vitreous body.

The complication of morbid alterations in the different parts of the eye, leaves ample choice for designating this disease; and in fact it matters little whether you call this disease by a name denoting the immediate cause of the effect, (i. e., choroiditis,) or by such as denotes the result, as long as the pathological condition of the interested parts, and their physiological function, is regarded. The best way, however, seems to me to be to include in the designation both immediate cause and effect, and it might not be amiss to call it by the collective name of glaucoma, or amaurosis glaucomatosa, resulting from choroiditis. In order to justify such a designation, it will be necessary to enter at large into that process which goes on when a similar disease is forming itself.

The parts constituting the eye being dependent for nutrition on the general economy, and some of them, as the aqueous and vitreous humors, upon the tissues in the immediate vicinity, furnishing, by an endosmotic process, the necessary supplement for the used up and exosmotically released elements, may undergo a morbid alteration whenever a constitutional disease deteriorates or changes qualitatively or quantitatively the nutritive fluid, or a local one impedes the nutrition. In consequence of such an impeded nutrition of some parts, a more extensive disease may establish itself involving parts connected by continuity or contiguity. Bearing in mind the products of inflammation, it is hardly astonishing that the sole presence of such morbid new formation may exert an injurious effect by its mechanical pressure and organic transformation even upon such parts of the eye as are not in immediate apposition.

Choroiditis—Glaucoma.

Like other vascular organs the choroid coat is liable to be inflamed, and this inflammation may begin in the choroid coat and exist for some time as a mere local disease, or it exerts its

morbid influence on the whole organism. It is, however, mostly, as in this woman, a morbid expression of a constitutional disease. In this form of choroiditis increased injection and enlargement of the anterior ciliary vessels exists as in all other inflammations of the choroid coat. The mobility of the iris may be impeded or destroyed in some hours or days: in chronic cases of choroiditis it takes weeks, or, as in this instance, several months. Dilatation of the pupil, is one of the most frequent symptoms. Although it may be absent in the beginning of the disease, it soon follows. The dilatation is mostly, like this, irregular. Sometimes, however, neither the diameter nor the form of the pupil changes. The greenish discoloration may be absent in the commencement of the chronic choroiditis, or it may be covered by the dulness of the cornea, or by the discoloration of the aqueous humor. A greenish discoloration may, however, exist without a choroiditis.

The color of the background, seen through the dilated pupil, may vary very much, being dependent upon many circumstances. The larger the pupil the less dark appears its background; the more advanced in age the individual is, the more the background of the eye appears dull, gray, yellowish, or greenish. The aqueous humor, mixed with pigment, may cause a smoky discoloration in the background. Hamatine transuded through the walls, together with blood serum solved in it, may show, according to its quantity, a yellowish or reddish appearance. But the most important change, causing discoloration, takes place in the posterior wall of the eyeball. In the normal eye the retina and choroid coat lay in the focus of its light-refracting media: the transparent retina and dark choroid coat form the screen; the cornea and the lens form, together with the enclosed aqueous humor, the objective lens of a camera obscura. Now if an exudation takes place between the retina and choroid, the retina, which at the same time loses its transparency, will advance, and thus be more or less removed from the focus of the cornea and the lens. The eye then ceases to be a well accommodated camera obscura. The quality and quantity of the exudation may influence the absorption and reflection of the rays of light. Coagulated fibrinous exudation changes the background of the eye to a white, or yellowish-

white crust, which reflects all the light, and gives it a peculiar appearance, as it has to return through the lens and the cornea. Beer's amaurotic cat eye belongs to this kind. Fluid exudations, as the serous, sero-albuminous, or fibro-serous ones, admit light to the choroid coat, and allow its return, through the more or less opaque retina, and vitreous body, and thus modify variously the appearance of the background. By the transparency of the fluid exudation, the choroid coat and its pigment must be considered, together with the quantity of blood. Even in the normal state, if the background is looked at through a dilated pupil, in a certain direction it appears reddish, how much more red may it appear when affected with choroiditis.

In glaucoma, as you see it here, the background appears sea or bottle green, of a peculiar dulness and opacity, which is situated deep behind the iris, and appears more intense in the direction of the light that falls in. If the nucleus of the lens is also opaque, the same appears also in a greenish light; but then the opacity is nearer to the iris, as generally in cataract, and is mostly, in the centre of it, deeply saturated.

Mackenzie, Canstatt and Sichel tried to explain the greenish tint from the mixture of yellowish and bluish rays of light, the yellowish ones coming from the lens, the bluish ones coming, according to their view, from the choroid coat. A yellowish lens, however, situated on a dark background, will in transmitted light appear greenish. It may be explained also in another way. The anterior ciliary vessels appear to us bluish, because their blood is covered by a transparent light membrane, the tunica vaginalis bulbi. The thinner the sclerotica is, by the fulness of the vessels constituting the choroid coat, as is the case in children, the bluer it appears. Now if a layer of exudation lays in front of the choroid coat, rich of blood, and before the more or less opaque light-colored retina, the same may, for the very same reason as the ciliary vessels do, reflect *blue* rays, which then passing through the yellowish lens, will appear dirty green. Opacity and discoloration, or change of color, must be distinguished from each other. The background of the eye may appear yellow, gray, reddish, discolored, and still be entirely clear. It is necessary that the media situated in front of the background be entirely clear, and

that the reflected light should proceed from one and the same plane. But if the light is reflected from different points of the background, situated superficially and deep, as it occurs with sero-albuminous exudations and half-transparent retina, the background must always appear more or less *misty* and *nebulous*. By a clear exudation on the choroid and transparent retina, the background may therefore appear black or reddish, but never misty. By solid deposits on the retina, or between it and the choroid coat, the background may appear differently *discolored*, but never misty. In glaucoma we find, as in this instance, *discoloration* and mistiness, the rays of light coming, as in *turbid* water, from different depths to the observer's eye.

Opacity of the lens, as also of the posterior capsule, frequently follows, and contributes to the change of color, not less than to the morbidity of the vitreous body, the pathological condition of which will be better understood if you compare it with its normal state.

The vitreous body is a perfectly transparent, colorless, highly elastic and *curvable* body, of albuminous consistency, which fills the entire posterior space of the interior of the eye, and is surrounded by the retina and covered in front by Petit's canal and by the central part of the posterior capsule of the lens. The anterior wall of the vitreous body shows the fossa lenticularis.

The vitreous body consists of two essentially different parts, the vitrina ocularis, and its coverings, hyaloid membranes.

The vitrina ocularis is a perfectly transparent, colorless, somewhat viscid fluid, which is covered by an entirely closed delicate membrane, yet obvious to the naked eye, the hyaloidea *in sensu stricto*, and is connected with the internal filaments of the optic nerve at its entrance. The hyaloid membrane divides on the ora serrata into two layers, the anterior of which is the zonula, while the posterior one forms the posterior wall of Petit's canal, and covering the fossa lenticularis, the hyaloidea connects in its centre so intimately with the posterior capsule that the division of both layers is pretty difficult in the normal state. The lateral and posterior circumference of the hyaloidea is covered by a layer of very transparent hexagonal nucleated cells, analogous to the paved epithelium of other hyaloid membranes. They probably renew the hyaloid membrane continually

by their apposition, and thus seem to connect the vitreous body with the internal surface of the retina (in fresh eyes this is clearly visible), but like the epithelium of other hyaloid membranes, it separates soon after death from its substratum, and the retina appears to lay disconnected around the vitreous body. From the inner surface of the hyaloidea proceed at a right angle a large number (180, according to Hannover,) of exceedingly subtile hyalodine plates, which are visible under a microscope of great power, but only on preparations made in a certain direction. Those plates proceed like radii towards the optical axis, in the vicinity of which they solve in an apparently textureless subtile mass. They divide the vitreous body into coniform subdivisions, the base of which is situated towards the sclerotic coat, and the *point* towards the optical axis, where they are not closed, but seem to open and dissolve in that textureless mass, the relative and absolute quantity of which is greater in children than in adults.

There are reasons to believe that those hyalodine plates, situated parallel to the optical axis, are transected by still another system of hyaloid membranes, which represent a number of sacs arrayed into each other, and opened towards the fossa hyaloidea, their side walls are situated almost concentrically to the hyaloidea, but their middle portions concentrically to the posterior capsule. Should this be correct, the vitrina would be included in a great many quadrilateral subdivisions, and it would be easy to conceive the firmness of the vitreous body, as well as the fact that small openings made in the vitreous body, if not near the optical axis, always allow only a small quantity of vitreous humor to escape, and cause a sinking of the vitreous body, only in the vicinity of the wound or opening.

The vitreous body of man, at birth, possesses no nerves, nor vessels. In the foetus there exists a dense net of arteries and veins. The arteria centralis retinae sends off a branch arteria hyaloidea (capsularis, corporis vitrei), which is situated in the beginning outside of the vitreous body, in the direction of the foetal eye-fissure, in a channel which is formed by both ends of the vitreous body, at that time of a horse-shoe shape, in its vertical section. At a later period both ends of the vitreous body meet and surround the artery, bringing it by their development and thicken-

ing nearer to the optical axis, where the artery, accompanied by a returning vein, then appears imbedded in a canal (Cloquet's), the remnants of which may be yet recognized in the adult, by an infundibuliform depression of the posterior circumference of the vitreous body corresponding to the *porus opticus*, and known as the area Martegiani. This channel is surrounded by an extremely thin hyaloid coat, by the last remnant of that part of the hyaloidea which, in the first period of foetal life, lines the fissure of the vitreous body, but later becomes transformed to one of the radial sectors.

The arteria capsularis and the accompanying vein, are the chief trunks of the dense net of vessels existing during foetal life in the vitreous body. In the further advancement of the embryonal life, the net disappears, leaving behind the arteria capsularis with the venous trunk, which divide in the vicinity of the posterior capsule into three or four diverging branches, covering the fossa lenticularis with a dense net of vessels, and form around the lens a circle (*circulus arteriosus Mascagni*). At birth all those vessels also disappear, only Cloquet's canal is still existing, and was shown by Hannover in vertical sections of eyes hardened in chromic acid, in the form of a round opening, the width of which is the larger the younger the eye is, so much so that in the foetus of two months the canal occupied a third of the vitreous body.*

A short time after birth every vestige of Cloquet's canal disappears, but there are reasons to believe, that under certain circumstances the reöpening of the canal is possible. With the vessels disappear the possibility of an immediate exchange of elements between the vitreous body and the blood. An immediate exchange takes place only during foetal life, during the sudden development of the vitreous body. After birth the vitreous body becomes nourished by the blood at a distance, by mediate currency through the hyaloidea.

The direction of the currents is a radial one. The mediating vessels belong partly to the arteria centralis ramifying on the inside of the retina, partly to the vessels constituting the ciliary processes, and are in exchanging communication with the anterior part of the vitreous body through Petit's humor.

* Huschke.

The participation of the vitreous body in all vegetative morbidities of the retina, speaks for the dependency of nutrition of the vitreous body from the vessels of the retina. The intimate relation existing between the anterior parts of the corpus vitreum and the ciliary processes, by means of Petit's humor, may be deduced by the repeated laborious observations of the ingenious Viennese ophthalmic surgeon, Stellwag, of cases in which Petit's canal was filled with exudations of different nature, and in which this exudation was transuding through the posterior wall of this canal into the parenchyma of the vitreous body, but was confined to the parts situated behind the posterior wall of Petit's canal, and thus formed a ring, in the opening of which the middle part of the posterior capsule was situated, and its posterior surface appeared misty nebulous. As yet no nerves have been discovered in the vitreous body; this want of nerves explains the insensibility of the vitreous body, and causes, with the want of vessels, the low degree of vitality (vital activity), which shows itself in the constitution of the vitreous body, and places it on a low degree of organic dignity.

Thus the vitreous body appears to be the mediator of currents which carry nutritive elements to the central part of the posterior capsule of the lens.

The proper physiological function of the vitreous body seems to be a dioptrical and mechanical one. The vitreous body appears to diminish the vibration of the crystalline with large amplitudes, as it would be produced through sudden movement and concussion of the eyeball if it was filled with fluids, and thus seems to secure the fixation of the crystalline in the opening of the ring formed by the ciliary processes.

The subdivisions of the vitreous body admit the curvability and elasticity, which are the chief conditions for the accommodative movements of the lens. Thus it is possible that under a pressure of the ciliary muscle, proportionate to the force of the muscle, and perhaps the external ocular muscles too, the external circumference of the vitreous body recedes, and that the middle portions of it, together with the crystalline, may advance in the direction of the optical axis, and thus accommodate the eye to near distances. Further, it becomes possible, by the curvability and elasticity of the vitreous body, that with

the relaxation of the ciliary muscle, the peripheral part of the vitreous body returns to its former position, whereas its central part, together with the lens, recedes into the natural original situation, necessary for the dioptric apparatus, and calculated for the observation of distant objects.

Concerning the pathological condition of the vitreous body, the researches are of a late date, and not yet carried to such an extent that an apodictical statement could be made regarding the manner in which morbidities in it are formed. For elucidations on the subject, we are indebted to recent anatomico-pathological investigations, and to examinations by the eye-speculum ; but as yet much is to be done in this field. In the interior of the vitreous body, masses occur sometimes which, by microscopic investigations, prove to be analogous to products of inflammation, which undergo a higher development, or a retrogressive metamorphosis. Those masses cannot have entered the vitreous body in a mechanical way, as proved by the integrity of the hyaloidea, and sometimes even of its subdivisions, while containing such masses ; nor can they have been formed by a mere transformation of the normal vitrina, exceeding as they do the quantity of the solid constituents of the vitrina. The presence of these substances in the interior of the subdivisions, may therefore be explained by the endosmotic and exosmotic currents nourishing the vitreous body, and carrying plastic elements from the circulation by imbibition of the morbid nutritive juice rich of plastic elements, and by the deposition of the solid parts through separation of the fluid. This process is not different from transudation. The hyaloidea cannot be inflamed. According to anatomico-pathological investigations, the hyaloidea and its septa may be transformed by splitting, but cannot be inflamed. The hyaloid coat and its septa are wanting, or are altogether perfectly transparent, and apparent opacities prove to be appositions, but never essential alterations of the hyaloid texture. A hyalitis or hyaloiditis, therefore, does not exist. Still less is the vitrina inflammable. It remains, therefore, but to consider the fact that under certain conditions the vitreous body becomes imbibed with a nutritive juice, exceedingly rich in solid elements, and that out of it the more solid elements are deposited in the

subdivisions, in order to be transformed according to circumstances, but mostly to be metamorphosed according to the constitution of the elements transuded by the endosmotic and exosmotic process.

The vitreous body may be morbidly changed and metamorphosed by splitting into fibres, and its anatomical constitution depends more upon the adjacent and neighboring parts, contributing to and modifying more or less the endosmotic and exosmotic process. As long as the product of inflammation is not situated between the retina and choroid coat, so as to cause a secession of the retina from the choroid, as long as the vitreous body remains unaltered in construction, even a minute and small quantity of an exudation will not affect its texture. But if the exuded mass of the choroid is a considerable one, and the space surrounded by the retina and containing the vitreous body, is a diminished one, changes are observable in the structure of the vitreous body. It appears like a gray yellowish brown body, of jelly consistency, no longer perfectly transparent, but dull and smoky. A clear limpid fluid, or yellowish, and yellowish-brown if colored by hæmatine, is eliminated by an incision made in it.

The fluid parts of the vitreous body disappear more and more under a gradual diminution of the space surrounded by the retina, the consistency of the vitreous body increases, and sometimes a secession in fibres is already observable in some parts of it. In the more advanced change, are visible opaque patches, with stripes, with nebulous contours, in the periphery of the remnants of the vitreous body, and also situated in the interior of the vitreous body, whereas the other parts of it still remain in the above mentioned condition. At this stage or period of metamorphosis the hyaloidea is mostly wanted. The opaque stripes and patches appear almost composed of a very fine granular perfectly amorphous mass. The formation of these tendinous stripes and spots begins always on the periphery of the vitreous body, and they extend therefrom toward the centre of it. Of synchysis or fluidization of the vitreous body, and other pathological conditions liable to occur in the vitreous body, as well as of extravasation of blood, I will treat when similar cases present an opportunity.

The morbid alterations of the vitreous body alluded to, offer, as you observe, many and various reasons for the anomalous appearance of the background to the naked eye, as well as to the examination by the speculum. It is also obvious that for the same reason the greenish tint cannot be considered as a pathological symptom of choroiditis, or that form of it called glaucoma, as it may be absent at one period of its development, or, on the other hand, a greenish background may exist without the eye being glaucomatous.

Opacity of the lens, or of the posterior capsule, frequently follows choroiditis. In fact, no eye in which the sight is gone, from the effects of choroiditis, possesses or shows a normal lens. The connection of the lens with the ciliary processes, may be interrupted by atrophy of the ciliary body on one hand, on the other by shrinking of the anterior capsule. The lens itself is transformed by induration or softening; subsequently gradual transmutation into chalk concretions takes place.

Diminution of the power of vision, and different other subjective sensations of light, are the most constant phenomena, associated, to a certain extent, with almost every choroiditis. They are produced by the pressure exerted upon the retina, at first by the congested vessels of the choroidea, and subsequently by that of the exudation.

If the choroiditis is a partial one, the loss of sensitiveness may also be a partial one, for a long time, but extends by degrees on its whole extent. The diminution of sight may occur suddenly, as it does in acute cases, and mostly under annoying phenomena of light, in a few days or even hours; in chronic cases it may occur gradually, steadily, or in intervals, and many months or years may pass before blindness is complete. Frequently the sight is dim, misty, cloudy, in the beginning only for a few hours or days, with or sometimes without subjective phenomena, photopsia, intolerance of light, or the sensation of pressure in the eye or forehead, or with pains along the supra or infra-orbital nerves. In most instances of chronic choroiditis complaints are made of objects appearing as if covered by a veil, misty, cloudy. Many assert that they see better and clearer in the morning than in the afternoon or evening.

By the irritation of, and the pressure on, the ciliary nerves, a dull pain is produced in the eye, and by it is caused the morbid sensibility to light, as well as the lachrymal suffusion and exorbitant pain, as produced in other branches of the trigeminus, according to known laws of peripheral sympathetic irritation.

Want of appetite, vomiting, and low spirits, are often apparent, in cases of choroiditis. Fever may be produced with every choroiditis.

Choroiditis may be produced by causes locally injuring the eye, as accidents or operations, it may be caused by an exertion of looking steadily at small and minute objects for a length of time, as in literati during reading and writing, or in people occupied in sewing, and in jewellers, goldsmiths, etc. This excessive application seems to produce choroiditis, if there exists any disturbance in the circulation, mostly in the vena portæ, or the presence of an organic disease of the heart may lead to congestions, inflammation of the choroid, with serous effusion.

General or constitutional causes may predispose to such a disease; thus Pyæmia, Tuberculosis, Syphilis, and mostly a venous discrasia, or arthritis, the products of which are liable to localize themselves in the choroid coat or its immediate vicinity.

Choroiditis may be divided, according to the quality of its exudation, or according to the cause producing it. The exudation may be a serous, sero-albuminous, or a fibrinous one. The fibrinous exudation may be plastic, tuberculous, or croupose, if the nature of the exudation is considered, or it may be called pyæmic, rheumatic, tuberculous, syphilitic, arthritic, if the predisposing cause is regarded. The diagnosis, however, must be formed under the consideration of the local and constitutional causes and their effects.

The woman before you has been suffering for many years from arthritis and secondary syphilis. If a corresponding dyscrasia much contributed to the development of a glaucoma, it may be less surprising in this cachectic individual, if we reflect that she had to contend with the greatest adversities and cares of life, compelled as she was to gain her livelihood by industrious sewing day and night, in order to support her large family.

Diminution of sight, from slight mistiness on to blindness and loss of every sensation of light, belongs to the most constant, and generally to the foremost symptoms of this disease. Various and peculiar are the subjective appearances regarding the retina before blindness ensues, during, and after it. Individuals in whom glaucoma exists are mostly of an age in which presbyopia belongs to the normal state, the insufficiency of accommodation occurring therewith. Incompetency for protracted exertion to fix near objects, and mites, may exist without a congestion or inflammation of the choroid coat. Although not even the most intense light is capable of producing the sensation of light in the blind eye, still the appearances of color and light do trouble the patient, as she states, whenever she awakens in the night, or in walking bends her head downward, and usually after dinner and supper, whatever position she may be in. As you hear by her account, sometimes the same form of the appearances occur brilliant, at other times dark, often blue and red, sometimes yellow. In the beginning of the disease the patient asserts that she saw better in the morning than at any other time; about noon the sight became gradually dimmer; now when the sight is already entirely gone she asserts that some days she has the above-mentioned appearances, some days not at all, so that this typical appearance leaves her the hope of regaining the sight, taking it to be a different degree of impressibility to light.

As for the course of this eye disease, it is as different as the causes producing it. Although there may be a predisposition for it determined by the stasis in the choroid vessels, still the qualitatively altered nutritive blood may yet more contribute to the development of such a disease. The localization of the exudation may by predilection be in one or another part of the choroid coat; still, as soon as a sero-albuminous exudation separates the choroid from the retina, blindness will occur, sometimes gradually, sometimes suddenly, according to the way in which exudation has been localized, gradually or suddenly.

As for the development of glaucoma, it depends upon many circumstances, that more or less hasten the transition of one stage into another.

1. The hyperæmic or congestive stage, is often not observed, and neglected by both patient and surgeon, as it causes in the beginning little disturbance, and the inconvenience resulting therefrom, might be attributable to another cause, also.

In some instances phenomena occur which, by superficial observation, might be taken for a simple catarrhal inflammation. The patient advanced in age may complain of heaviness in the eyelids, or of the sensation of a foreign body under the upper eyelid, and, besides injection of the conjunctiva, no other morbid phenomena may be visible. The congestion of the eyelid, however, in suspected cases, is often associated with an anomalous injection of the anterior ciliary vessels with the sensation of fulness in the eye, and its increased resistency.

In other instances, appreciable change in the state of refraction, want of accommodating power during reading, writing, drawing, increased sensibility of the retina, appearances of light, dim sight, hemiopia, diplopia, may attract the attention of the patient. If the complication of phenomena mentioned in both instances, should occur, associated with a morbid predisposition, indicated by the general habitus, or complaints reverting to it, the development of glaucoma may justly be feared.

2. The stage of exudation occurs after some of the enumerated phenomena have been existing for some time, even if they have not been noticed, and begins mostly by a circumscribed inflammation, which soon is followed by serous exudation. Cases occur in which sight is gradually diminished, the objects appear misty, and cloudy, until they are entirely surrounded by an impenetrable cloud. The inflammation takes place often under the most violent, dull, and sometimes continual, other times typically remittent, pains in the eyebrows, or along the infra or supra orbital nerves. In such cases the symptoms of hyperæmia (injection of the ciliary vessels), lachrymal suffusion, and increased secretion of the conjunctiva, greater resistency of the bulb, are observable, together with the symptoms denoting a partial inflammation, as oval form and unequal dilatation of the pupil, partial discoloration of the iris, and partial paralysis of the retina; often the aqueous humor is also turbid. The pains recur even under the most rational treatment, at longer

or shorter intervals, and with every exacerbation the symptoms of a total exudation, and pressure on the retina, are more distinct, and are characterized by the diminution of sight and discoloration. This disease occurs, with febrile reactions, by great exudation of sero-albuminous fluid, in a few hours, or days, whenever a morbid predisposition for it exists in the constitution, and is excited by apparent slight causes, as by a dietetical error, or other causes producing cerebral congestion, or may be produced by more serious ones, as injuries.

3. After a partial or general exudation has taken place, the resistency of the eyeball is increased. The sclerotic coat becomes dirty grayish, or yellowish, and shows leaden color patches, which elevate themselves to prominences, in the subsequent development of the disease. Glaucoma forms the most frequent form of choroiditis.* It develops itself in one eye, in most instances; as in this case, at first on the left eye, but subsequently, after days, weeks, or months, in the right one too. Women are mostly subject to this disease, in the climacteric years. This disease develops itself seldom during the regularly appearing period, but mostly when, as in this instance, this function has long ceased.

[To be Continued.]

A Treatise on Uterine Hemorrhage in all its forms; with some Views respecting Fissures of the Os Uteri as the frequent Cause of Abortion, with their Curative Treatment. By AUGUSTUS K. GARDNER, A.M., M.D., Fellow of the New York Academy of Medicine.

There is no scene in the experience of a physician more trying than the care of cases of flooding. They come when least expected, without premonition, often without obvious cause, and in a moment change a scene of rejoicing and happiness into one fraught with danger and filled with horror.

* According to A. von Graefe, glaucoma may develop itself without the enumerated morbid changes in the choroid coat.

There is something in the mere flowing of blood instinctively fearful. Many will faint at the drop produced from the prick of a pin. The blood accompanying the surgeon's operations not only whitens the cheek of the reckless student, a spectator of the scene, but palsies the hand of the operator himself, to whom no consciousness of power, or frequent exposures to such scenes, renders him callous. Startling and fearful as may be the sight of streams of blood and clotted gore in various scenes, there are none found more appalling than in the obstetric chamber; none where more instant aid is required, and where the whole energies of the medical attendant are so imperatively demanded, or where presence of mind is more important. Decision, too, is necessary. There is no time for vacillation in opinion or action. No time to run home to hunt up some method of treatment. The surgeon, if he finds himself at fault in his anatomy, while an assistant compresses the artery, may turn to his manual for light respecting the course of an artery, but in the floodings of the parturient there can be no temporizing. The knowledge of the requisite treatment must be present, and promptness also in its application. Neither the horror of the scene, the pools of blood, the ghastly, cadaveric appearance of the patient, the impeded respiration, the fluttering pulse; nor the faintings, the tears, or the wailings of mother or husband, the entreaties and prayers of surrounding friends, will disturb the equanimity of the educated and reliable physician. The true man, conscious of his own resources, instead of giving way, but rises as danger is most imminent.

Startling as is this hæmorrhage to the unexperienced; disagreeable and exciting to the man calm by reason of frequent observation; in proportion to the frequency of this accident, it can scarcely be esteemed dangerous. This is by reason of the skill of the physician. Left to itself death would not unfrequently occur therefrom, while it is now of comparatively unfrequent occurrence.

In no branch of the obstetric art have the beneficial results of patient observation, careful study, and justifiable experiment, redounded more to the credit of science and the benefit of the suffering. It is my purpose, at the present time, to review this subject, and to see what experience has found most reliable as preventive and curative in these dread cases.

Uterine hæmorrhage is of various sorts, and we shall consider it under two general divisions :

1st. Hæmorrhage from the unimpregnated uterus.

2dly. Hæmorrhage from the impregnated uterus.

These two grand heads I shall again subdivide into several classes :—

Hæmorrhage from the unimpregnated uterus may arise from congestion or hypertrophy of the uterus, where there appears no marks of active disease in the organ. The intercellular tissue being, however, somewhat congested, and the internal mucous membrane slightly reddened.

More frequently accompanying the congested uterus, there is chronic hypertrophy of the os and cervix uteri, and more or less extensive ulceration of both these portions. Very commonly this ulceration extends up the cavity of the cervix, and by means of the speculum, the blood may be seen freely exuding from the cavity and from the spongy granulations of the external ulcerated surface. Modern science has thrown a flood of light upon the formerly obscure (so called) disease, named menorrhagia, now recognized only as a symptom of various internal well marked lesions. Since the general introduction of the speculum into the diagnosis and treatment of diseases of this nature, he would be highly reprehensible who allowed menorrhagia to continue exhausting his patient, without bringing it into use, both for testing the correctness of his diagnosis and for effecting a cure.

Polypi of the uterus are the next most prolific sources of frequent and continued hæmorrhage. These may exist of all sizes ; sometimes contained within the uterus, within the cervix only, or appended therefrom hanging in the vagina. Very frequently when the hæmorrhage is severe and long continued, the polypus is so small as to be quite unnoticeable by a careful digital examination, from its lying within the os, and is discovered only by a speculum, which stretches open the os uteri and discloses it to the eye.

Cancer of the uterus is also accompanied by profuse flows of blood, but the diagnosis of this form of uterine disease is generally made known by many other well marked symptoms. I have, however, seen a case of cancer when the disease had

advanced, without any suspicion of any disease at all by the patient, until she came to me for incontinence of urine, which had come on within a week, and attributed by herself to a cold, but which proved, upon examination, to be caused by the unobserved ravages of a cancer, which had eaten through the bladder, constituting a vesico vaginal fistula. The cauliflower excrescence is, perhaps, of all the cancerous affections, the most frequent cause of hæmorrhage.

TREATMENT.—Simple hypertrophy of the uterus, unaccompanied with other disease, is of rare occurrence. A case of extreme flooding, probably from this condition of things, has recently been narrated to me by Prof. Barker of this city. It was in a young girl to whom he was called in consultation by her father, a physician of this city. It was her first menstruation, and she was so far prostrated that she was pulseless and apparently dying. So great was the extremity that it was not considered safe to allow another drachm to flow, and with great good judgment Dr. Barker proceeded to tampon not only the vagina, but even the os and cervix uteri. Success crowned this treatment, and when the next morning the tampons were removed, no further flow occurred.

Simple hypertrophy is more commonly found in females advanced in life, at the time of the cessation of the menstrual function. When profuse discharges accompany this condition, an alterative treatment at the seasons of its cessation, will be generally found to diminish its size, and consequently to finally restore the discharge to its proper quantity.

At the immediate time of its excessive flow, I have found nothing to arrest it more successfully than full and frequent doses of *Secale Cornutum*, either in powder or tincture. I have given a drachm of the tincture every quarter or half hour with decided relief. Ice, alum, *acetæ plumbi*, &c., &c., the usual remedies employed, I need not here mention.

Far more frequently this hypertrophy of the uterus is accompanied by, and perhaps dependent upon, disease of the os and cervix uteri. In these cases, all dependent disease, with the menorrhagia, are entirely arrested by the topical treatment of these affections, by the use of the speculum, according to Ben-

nett's method. The form of disease usually called ulceration, is not always in reality so, there being simply a loss of the epithelium of the mucous surface, exposing beneath a granulated surface. These granulations bleed very freely. They are usually covered with pus and mucous, and a glairy mucus is seen flowing from the cavity of the cervix. Sometimes, even the slight abrasion from the passage of a sound into the os, or the wiping of the granulations even, causes a flow of blood from the surface. Any caustic application, occasionally repeated, is sufficient to entirely restore the parts to their natural character. The hypertrophy both of the cervix and body of the uterus is restored to their natural state, as soon as the active disease is thus arrested. Occasionally a slight alterative course is found serviceable where the hypertrophy is great. This granular condition, which is an enlargement of the mucous follicles, is what is commonly called ulceration, as has before been stated. True ulceration of the cervix uteri, is of two descriptions, syphilitic and cancerous. If the former, the specific character is to be destroyed by caustic, and such internal treatment given as the case may require. Hæmorrhage is rare from syphilitic ulcerations, still it does occasionally occur.

Polypi are easily disposed of. When small and within reach, they may be seized by forceps and twisted off. If larger, it may be necessary to ligature them, or to seize them by a graduated polypus forceps, with which by daily increasing the pressure upon the neck (the instrument being left hanging by it), it soon drops off. If within the os, the uterus should be induced to expel it, by means of Ergot, when it may be seized and treated as above advised.

Perhaps under this head may be classed the floodings from hydatids, as their existence is generally obscure, and the symptoms of their presence often resembling that of internal polypus. The administration of Ergot to cause their expulsion, is the appropriate treatment.

Hæmorrhage from cancer of the uterus, with which we will include the cauliflower excrescence, is very common with those afflicted with this grave malady. Where the disease is confined to the cervix, the better treatment would undoubtedly be excision, and more especially if the disease was the cauliflower

exerescence. Farther than this, astringent washes, alum, and ice, inserted into the vagina, will often afford a temporary arrest. A lotion will frequently be found effectual, made as follows :

R.	Nitras Plumbi, gra. v.
	Aquæ, f.ʒj.
M.	ft. lotis.

The acetate of lead and the mineral acids, astringents, &c., internally, will often be of temporary benefit.

I come now to speak of the *hæmorrhages from the impregnated uterus*. Those that I have already described rarely are so excessive, if those arising from cancerous degenerations be excepted, as to threaten life by the immediate loss of blood, although the secondary anæmic effects may result in death. In this class of cases time is afforded for thought and consultation.

It is from the hæmorrhages from the impregnated uterus that immediate death results, and it is these that we are now to examine. This class may well be considered as hæmorrhage occurring before and at full time ; and this class may again be subdivided into *ante partum* and *post partum* hæmorrhage ; each of which is capable of a further division, into hæmorrhage preceding and succeeding the delivery of the placenta.

Loss of blood may occur in both of the classes of cases referred to under the first grand division, to a fatal extent ; but while the fatal result may be the same in both cases, they are, in every other respect, far different. Except in rare instances, the hæmorrhage before full time is always preceding the delivery, while that at full time is posterior to it.

Hæmorrhage not unfrequently occurs at the next menstrual period following conception. The woman, especially she who has never borne children, after half suspecting from various signs that she was pregnant, at her usual period is not only "regular," but profusely so, with more than usual pain, and with numerous clots which have not previously characterized her periodic secretion. A careful examination of these clots would discover imbedded in them: a rudimentary fœtus. The

long formed habit of nature, conjoined perhaps to too vigorous exercise, too stimulant food, or even mental emotions, caused the secretion to be continued as usual, and the ovum to be expelled.

These cases are generally considered to be simple menorrhagia, and are treated accordingly. They rarely, if ever, result in farther difficulty.

At a somewhat later period in gestation, when the ovum is from two to five or six months, abortion is very frequent, when the hæmorrhage is alarming. These occur from various causes, *and never without a cause which should be discovered by the physician*, and the difficulty obviated afterward. This I wish most especially to have noted, that WHEREVER THERE IS A MISCARRIAGE, THERE IS ALWAYS PRESENT SOME ACTUAL PERCEPTIBLE AND OFTEN TANGIBLE CAUSE. In many cases this is easily known. Some injury, sudden fright, the effort of vomiting, has been sufficient to destroy the integrity of the ovum, and as a dead substance, as a foreign body, it has been expelled. This may occur as the effect of mercury, or other medicines, the sympathetic action of the uterus stimulated by cathartics. Great fatigue may be the existing cause of the expulsive uterine action. But there are many abortions which have been considered to be without cause. Females have aborted without any particular reason, every few months during many years, and the physician, in his ignorance of any cause, has stated that it was from the force of habit; that there was a tendency, from habit, of the uterus to throw off its contents upon the least irritation or excitement, when the ovum arrived at a certain maturity. Females have been made to believe, what the physician himself, once equally credulous, believed, that there was a "tendency to abort;" and have been made to lie in bed for weeks and months, made sick by want of air and exercise, to prevent a senseless organ, devoid even of the nerves of sensation, from yielding to the temptation or tendency to abort.

Thanks to the added wisdom of the nineteenth century, we now know better than this. The new lights of science have added ocular evidence to the vain theories invented to conceal our ignorance.

At the given period, or thereabout, the woman with the ute-

rus having these bad habits, perceives that the usual vaginal secretion is slightly tinged with red, which by degrees deepens in color, till a decided hæmorrhage, accompanied by pains in back, thighs, &c., with involuntary expulsive efforts, is the result; and sooner or later the fœtus is expelled. If one examine the uterus, as far as may be done by means of the speculum, either before these symptoms commence, or after the abortion is completed, he will find that there is local disease of the os uteri, which is the *fons et origo* of all the trouble, that there is uterine congestion, ulceration, or lesion of the epithelium, and enlargement of the mucous follicles, or fissure of the os.

Uterine congestion, as a cause of abortion, not unfrequently depends upon high-feeding—not too much in quantity, but too stimulating in its character upon the circulation. This is noticed in animals. Lewis S. Hopkins, M.D., says:

“In the August number of the *Farmer*, complaints are made of abortion in cows.

“High feeding has a direct tendency to produce this; if a cow has done so once, meal should be kept from her a month or two before the anticipated period of abortion, or during the greater portion of the period of gestation. Many a female of the human species has only avoided the same ‘mishap,’ by strict attention to diet.

“Too high feeding, with no hard work, often produces an irritability not only of the nervous, but of the circulating system, in its minutest subdivisions, as spread over secreting surfaces. There is a greater tendency to this in the female system than in the male. The *mare* fed on oats, and but little used, will often become excessively snappish, and intensely cross. Withdraw her oats, and she loses this irritability; or give her hard work, and the effect will be the same. If in the cow this irritability of the secreting surfaces, induced by continued high feeding, is fed and fanned by meal and grain, a tendency to *inflammation* is produced in the uterus, which, during gestation, is the most irritable point in the system. Nature has no other way to relieve herself of this danger to the life of the mother, when the meal and grain continue to flow in, than to prevent inflammation of the womb, and death, by evacuating the contents of the uterus. The increasing irritability of that organ, excites its repeated contractions, as at the full period, and abortion results, and the mother is saved at the expense of the young. If the young is carried to maturity, it survives, and the mother dies of inflammation of the womb.”

Ulceration or lesion of the epithelium and the enlargement of the mucous follicles, as the second cause of abortion, depends

somewhat upon the situation of the placenta. If high up at the fundus of the uterus, unless the abortion be effected early, the current of blood is remote from the abraded surface, which is either healed by this derivative or remains *in statu quo*. Should the placenta be inserted lower down, the tendency to bleed is much greater and abortion more probable.

In the great majority of cases of abortion at the completion of a certain period, there is fissure of the os uteri.

If we take the description of the changes of the os uteri during gestation, as formerly believed and as still described in the books, we shall not be so well able to account for the fact that a fissure of the os produces abortion. But we take that given and demonstrated by M. Stolz, in 1826, and which has now received the sanction of the most eminent physiologists and pathologists. These views have recently been plainly expressed by L. Shanks, M.D., Professor at Memphis Medical College, whose words I will borrow.

"The description of these changes, as furnished in most of the books, is, that in the progress of gestation to term, the neck spreads out at its upper part, so as to aid in the enlargement of the womb, and thus, by expanding from above downwards, the neck becomes shortened, until at the end of the ninth month, it is merged in the ovoid form of the womb, leaving only a ring of variable thickness. Instead of this being the true anatomical change, which takes place in the progress of gestation, it is found, from careful examinations, that this description is entirely erroneous. For a proper understanding of the diseases of the uterus, I have already attached much importance to a correct knowledge of the anatomy of the neck and the body, and especially of their respective cavities in the normal, undeveloped state.

"The length of the cavity of the neck being generally about a third greater than that of the body, and in the healthy, undeveloped state, having its internal opening so closed by the contraction of the circular fibres, as to make it somewhat difficult to pass a medium-sized sound through it, into the cavity of the body. According to the description of M. Stolz, which is now fully confirmed, instead of this internal opening of the neck expanding, and the superior part spreading out downwards

during gestation, the reverse of this takes place. Early in pregnancy, the os and lower part of the neck begin to soften. This softening gradually extends upward, though less rapidly, in primiparæ cases. As the ramollisement extends from the os upwards, the os and neck expand in multiparæ cases, though in primiparæ cases the cavity of the neck expands without a corresponding patulence of the os, which gives the neck a spindle shape. The cervix loses but little, if any, of its length. By the seventh month, the intra-vaginal portion of the neck has undergone this change, being softened, and the os so dilated in women who have been mothers, as to admit readily the first phalanx of the index finger. This ramollisement and expansion of the cervix progresses upwards, so that a few days before full time, in its proper course, the circular fibres, closing the internal opening of the neck, become softened, and it dilates."

It is not necessary or appropriate to follow this interesting description farther, in its method of accounting for the cause of labor commencing, a theory far more plausible than any of those formerly given, in the vain attempt to reconcile facts with the erroneous theories of the day. Sufficient for us at the present time has been given, proving that the change in the os uteri commences at the external os, and not at the internal os.

Now we know that the vast majority of cases where fissure of the os exists, not only does it commence at the inferior extremity of the cervix uteri, but that in far the greater number it is confined to that portion.

With this fact before us, and the knowledge that this same portion of the cervix, in the progress of gestation, first commences to soften and contract, we may easily see the heretofore unaccountable cause for numerous abortions. The softening renders the already irritated portion, to the vessels of which an unusual activity has been imparted, still more vascular. The subsequent contraction draws apart the sides of the fissure, exposes the orifices of the various vessels, a slight hæmorrhage ensues, which gradually increases, till the life of the germ is destroyed, or the bleeding becomes so profuse as to stimulate the uterus to the expulsion of its contents, or to endanger the life of the mother. An abundance of such cases are given by Gooch, Dewees, and other writers, styled by them "irritable

uterus," but in which the pathological changes were most undoubtedly such as have been here described. This is not a fanciful theory, for which we seek for facts to substantiate, but, on the contrary, it is one deduced from facts. Numerous cases have occurred in my own practice, and in those of my friends, which I have been called to see in consultation.

A few marked cases only will I relate, in a very brief manner, as illustrative. A lady, about thirty years of age, was confined with her first child at full time, after a very severe labor of some days duration. I saw her two years after, when she stated that she had never enjoyed a well day subsequently to this confinement. That she had nursed her infant about a year, constantly troubled by pain and weakness in the back and loins, accompanied by a more or less profuse leucorrhœa. That latterly she had been much debilitated by repeated abortions, occurring from about the second or third month of pregnancy. They commenced by slight bleedings, increasing to a profuse hæmorrhage, threatening her life. Vaginal digital examination discovered a marked prolapsus of the uterus when erect, but which subsided when in the recumbent position: the cervix immensely hypertrophied and ragged. A better investigation with the speculum disclosed the os, so immense as to be scarcely admitted between the fully distended blades of a four-bladed Ricord, divided into three irregular-sized lobes, the edges of which were covered with profuse unhealthy granulations, the whole surface denuded of epithelium, and the entire organ bathed in a profusion of the muco-purulent secretion usually accompanying these lesions. The case was a plain one. The os had been torn in those places at the first labor, and these lacerations, never healed, were a constant source of irritation, and, when pregnant, the undoubted cause of all the abortions, subsequent.

I will mention but one more case further to substantiate the view which I have taken of this form of abortion. I lay more stress upon it, because these cases have been one of the opprobria of medicine; and having, as I think, given a conclusive proof of the theoretical cause of these affections, I wish now, by some cases plainly showing the facts, as sustaining the theory, and from which I have educed the theory, to convince all

of the correctness of this view, and to lead to a reformation in the past and present palliative and temporizing method of treatment. In the vast majority of these cases of irritable uterus, in nine out of ten, where there exists this periodical tendency to abortion, cure is not only possible, but if the treatment proper for the affection be employed, the cure is as certain as may be predicted in any disease that exists. If, however, the eyes are to be closed and the ear shut to the facts which the advance of science has revealed,—if, supine in our conservatism, we join with the blind old foggy-ism in their empty denunciation of the speculum uteri, and its immense utility in these affections,—dogs in the manger, we neither use it ourselves, nor permit others so to do,—worse than the most arrant quackery, which always proposes something new, and thereby sometimes ignorantly benefits, we are content with the ashes of the past, instead of seeking for living fire in the present; if thus contented in our partial acquirement, there is henceforth no advance in science, and the unnecessary sufferings of millions remain unmitigated, unassuaged.

But my object is not to attempt to convince those “who, seeing see not; and hearing hear not, neither do they understand,” but merely to state my own views, in all simplicity, and some of the facts upon which they are founded.

A most instructive case, to which I refer in consideration of several views to be made in this paper, is the last reported by myself in the American Medical Monthly for October, 1854, entitled “*Fifteen Selected Cases of Operative Midwifery.*” After two confinements at full time, the lady experienced a slight jar in stepping from her carriage. She was daily expecting her third confinement. Pains soon came on. She was speedily confined with a dead child. Two years subsequent she aborted at about the third month. This commenced with a slight discharge of bloody mucus, which was supposed by her medical attendant, and myself, to arise from fissures of the os, and the next day was appointed for making an examination, but before that time arrived she had aborted, and her life was in great jeopardy. When sufficiently recovered, some weeks after, from the excessive hæmorrhage, to which reference will be subsequently made, her physician found, upon examination by the

speculum, not only the local congestion to be expected after so recent a confinement, but induration, and fissures apparently of long standing, and quite sufficient to account for all the difficulty she had experienced.

I might quote scores of similar cases from experience in the Northern Dispensary, in the class of Diseases of Females, and I am entirely convinced in my opinion of the origin of the hitherto unknown or unsuspected causes of numerous abortions, as proceeding from local disease of the womb, and not to be described under the names of "irritable uterus," or any other vague and unsatisfactory appellation.

Leaving this very important class of cases but barely alluded to, and imperfectly illustrated, I proceed to discuss that form of *uterine hæmorrhage which springs from within the cavity of the uterus*, existing in cases both before and at full time, where the blood proceeds from a partial or complete detachment of the placenta. This accident occurs most frequently where there is placenta prævia, where the placenta is placed partially or centrally over the os uteri. The method of the obliteration of the cervix, as I have described, from the inferior os, and not vice versa, accounts for the rare cases of hæmorrhage before full time, which we should suppose more frequent than it has been found to be, were the absorption in the contrary direction. In 1853, I exhibited to the students at the College of Physicians and Surgeons, an ovum of six months, with the membranes intact, where the placenta was completely over the os, and was detached and born anterior to the child. There was constant hæmorrhage in this case for two days before its delivery. These cases are not unfrequent, particularly at full time.

I was recently called in consultation in a case of labor at full time, where the woman was rapidly sinking, pulse very fresh, and 180 or 190—too rapid to be distinctly counted—when I was informed there was a rupture of the womb, but which symptoms I discovered to be solely attributable to a detachment of the placenta and profuse internal concealed hæmorrhage, and the child dead, therefrom, probably. —

Mrs. L——, some two years since, was pregnant at the

seventh month, and, with the exception of being much troubled with nausea, was, though delicate, in pretty good health, and had taken a short walk in the morning. While sitting at tea, late in the evening, she felt a flow, which was discovered to be bloody, and immediately sent for me. It was her first child, and the discharge was very profuse. I supposed that the membranes had ruptured, and the waters colored with blood made the very profuse quantity observable during the three or four hours subsequently. Examination evinced very great tenderness of the os uteri, which, however, did not admit the finger. This flow continued with great profusion until the lady complained of singing in her ears and motes in her vision. A fresh examination discovered the membranes intact. The source of this very great hæmorrhage was not known till within a few weeks, and subsequent to another labor at full time, and without any unpleasant symptom. A speculum examination for leucorrhœa, and pain and weakness in the back and loins, discovered the same tenderness of the os,—persistent since the first miscarriage,—congestion and hypertrophy.

THE TREATMENT of these cases is of two characters, viz: the immediate hæmorrhage; and secondly, for the cure of the causes of the hæmorrhage.

When called early to a case of threatened miscarriage, when the hæmorrhage is slight, and the symptoms indicate its local character, from ulceration or fissure of the os, a speculum examination should be immediately instituted, and the parts, if found in this condition, cauterized by *nitras argenti*, thus temporarily arresting the hæmorrhage, and the uterine plethora allayed by general bleeding, and the excitement quieted by an anodyne. Should this treatment be effectual, the disease of the os should be subsequently treated by local applications, until the parts are restored to their normal condition.

If, however, the hæmorrhage was not the primary symptom, or if the abortion was threatened in consequence of some fatigue, great exertion, or excitement, where there may be a debilitated condition of the uterus, which, in its relaxed state, opens the os, or in some way diminishes the circulation, and impairs its vital functions, I have found great benefit from the tonic effects pro-

duced by small doses of *secale cornutum*. The slight contraction consequent upon its action, closing the bleeding orifices, and frequently entirely arresting all further discharge and difficulty. This point I have already fully stated, with cases illustrative, in an article entitled, *An Essay on Ergot, with New Views of its Therapeutic Action*; published in the *New York Journal of Medicine* for September, 1853.

The bleeding, in the cases I have mentioned, will rarely, if ever, be so great as to endanger life. If, however, in a case where the origin of the flow is doubtful, it amount to any considerable quantity, the result will be to dilate the os, so that the finger may determine whether there be placenta prævia. If so, we should temporize, by resorting to perfect rest, external and internal applications of ice, alum internally,—a large piece passed into the vagina, and placed near the os uteri. These means will sometimes arrest the flow, to be repeated again at some future time. If, however, the patient be at the full time, or the miscarriage cannot be prevented, the next duty is to rupture the membranes, either through the presenting placenta by a small puncture, or, what is preferable when the placenta but partially covers the os, through the membranes at one side. Ergot should then be given in sufficient quantities to keep up a continued contraction of the uterus, and to thus force the presenting portion of the child firmly down upon the bleeding surface, and thus to dam up the flowing stream. In this manner the head forms a natural tampon. If this be not successful, manual interference must be had recourse to, and the hand passed through or by the side of the placenta, and the child turned and delivered as speedily as may be. In some cases the vaginal tampon may be found advantageous, but rarely in this form of trouble, when the child be *à termé*! and in general it will be found but a temporizing method of doubtful utility.

When, by any accident, we have a detached placenta, the case is indeed a grave and startling one, calling for great decision and promptness of action. It resembles rupture of the uterus, in many of its symptoms, and is often extremely hard to diagnose. The fluttering pulse, anxiety of countenance, restlessness, retrocession of the presenting portion, exist, as in rupture. In general, however, the pear shape of the uterus is

retained. Fortunately, the duty of the accoucheur is alike in each case. Immediate delivery is imperative. From the prostration from the loss of blood, there is no rigidity of the os to interfere with the introduction of the hand, and the immediate delivery by turning may be effected, if the head has so far retreated as to prevent the delivery by the forceps. I have seen but a few cases of this form of difficulty, and speak, therefore, from a limited experience. There seems, however, to be no other feasible manner of operating when these appalling accidents occur.

Having spoken of *hæmorrhage* before delivery, I come now to describe that *occurring after the birth of the child*. This I divide into two classes, the first ending with the delivery of the placenta, and the second embracing the floodings after the placenta has been expelled. In these two classes are embraced the hæmorrhages most commonly found in practice.

There are a small number of females who are peculiarly liable to flooding, and who always commence to flood as soon as the child is born. There seems to be with them some peculiar nervous distribution to the uterus, which prevents this organ from immediately responding to its new condition. The pains have been powerful and effectual, for a longer or a shorter time, till the child has been expelled. Up to this period there seems to be no want of contractibility in the organ, and as the head advances, and the child is expelled from the cavity of the womb, the womb contracts upon it, and is gradually diminished in size. How is the case usually conducted in practice? As soon as the head is expelled, the anxious attendant begins to fear that every moment the hæmorrhage will commence, and impetuously seizes upon the expelled portion and pulls away for dear life, although without much regard for the life of the child, from the danger of rupturing the ligaments of the cervical vertebrae and the spinal cord. In great haste, therefore, the child is extracted, and sure enough, the hæmorrhage commences just as was expected, and the physician congratulates himself that the child is out of the way. But the placenta is still there, and this he also forcibly delivers. Still the hæmorrhage continues, and the case soon becomes one of great peril to the mother,

anxiety to the physician, and horror to the surrounding friends.

The cause of all this, is the bad practice of the attending physician, in very many cases.

The labor went on well enough as long as it was left to itself. Then why not continue? "Meddlesome midwifery" does not mean solely in applying forceps, using the vectis and Smellie's scissors. On the contrary, there is more "meddlesome midwifery" in the practice of many gentlemen who never touch an instrument. It is especially illustrated in the case just narrated, not solely from imagination; for such practice I have myself seen and heard of.

The uterine contractions and diminution in volume, as I have before stated, goes on regularly so long as the child advances toward birth, and as the head passes through the superior, middle, and inferior straits. While it rests upon the perineum, and even when entirely expelled, we have no flooding. How then shall we proceed to continue this desirable state of things? And this is the great point to be especially noted in the treatment of these cases. IMITATE NATURE, *as she has already manifested herself*, or rather, LET NATURE ALONE. Instead of frantically seizing hold of the head and pulling like a madman, sit down quietly and wait for nature to finish a work she is abundantly able to perform, and which she has so far ably and effectually accomplished. From some idiosyncrasy the uterus is unable to effect a *speedy* contraction, and time is necessary. Let it take its own time, and yours likewise. Patiently wait, not only till nature has expelled the shoulders, but the hips also, and do not think of lending a finger's strength toward completing the delivery, so long as any portion of the child remains within the uterus. Every one knows that it has long been recommended to introduce the hand into the uterus to arrest flooding, by the stimulus of its presence. Does not the body or legs of the child do this work as effectually as the hand of the accoucheur?

In this method I have treated very many cases. One lady, several times confined in England, and once by the late Dr. J. Kearny Rodgers, I delivered soon after the regretted decease of that gentleman. In every confinement she had bled profusely. At this labor everything was prepared for a similar

scene of doubt and danger. I administered a half ounce of the tinct. of ergot as soon as the head pressed upon the perineum. It was soon expelled. I then repeated the dose, and in from ten to fifteen minutes the uterus itself, by repeated contractions, expelled the child in safety, and not a gill of blood was lost.

Dr. Isaac E. Taylor related a case to me in which he was called in consultation, very similar to this, where in several previous labors the hæmorrhage had been profuse. He arrested the attending physician in his desire to deliver the child immediately, and suffered *forty minutes* to elapse after the head was delivered before the whole child was taken away from the mother. The child was purple in color from the influx of blood into the head and from a temporary asphyxia, but subsequently did well, while the mother had no flooding of any account,—the perineum only showing a slight flow, not amounting to a hæmorrhage.

Sometimes, however, the energetic, spasmodic action of the uterus does not permit the delay, giving no time for the uterus to contract firmly upon itself. In the case of the wife of a member of the Academy, who flooded after every labor to a really frightful extent, the uterus violently contracted until the child was completely expelled, and then relapsed into a state of inertia, accompanied by most profuse hæmorrhage.

It is the duty, therefore, in all cases, to do as little as possible to assist the delivery in this last stage, and particularly when subsequent flooding is to be expected.

In cases of abortion, when the means already proposed in such cases do not arrest the abortive action, if the flow of blood be great, it is advisable to give large and repeated doses of the *secale cornutum*, in order not only to stimulate the uterus to a more speedy discharge of its contents, but also to press the foetal head, or presenting portion, strongly against the opening of the os uteri, and thus to act as an internal plug. Should, however, the flow be excessive, in addition to this treatment it may be advisable to tampon the vagina. This may the more appropriately be done early in the flow, when the firm and slightly dilated os uteri evinces that some time must elapse before the contents can be expelled. In these cases it may frequently be well

to pass a piece of alum into the vagina before using the tampon, to assist in the coagulation.

It should be remembered that the bleeding in these cases is especially efficient in relaxing the cervix, often a tedious and painful process, and that the hæmorrhage to be particularly dreaded, arises in an after period from the retained placenta, of which I shall speak in its proper connection.

I, not unfrequently, as the head passes the vulva, and particularly when there is any fear of flooding, give a half ounce of the tinct. secale cornutum, as a precaution against flooding, and not as an adjuvant to the labor. The alcohol acts as a general stimulant, and the ergot tends to ensure a permanent contraction of the uterus.

When the child is delivered, then, not unfrequently, a flow commences from the placenta, which is more or less detached from the uterus. The first aim is to secure uterine contractions. It is worse than useless to deliver the placenta, if this is not effected; for if this is done, instead of a few sinuses left open and bleeding, there remain those of the whole placental surface, and the flow is thereby very much increased.

The uterine action should be excited by the administration of ergot in full doses; (I have, not unfrequently, given ℥vj. of the tincture in the course of an hour, and from which no injurious effect can be expected;) by firmly grasping the uterus through the parietes of the abdomen; abdominal frictions; ice to the abdomen, alternated with cloths wrung out of hot water; the cold and hot douche alternated: these, one or all, will soon produce a temporary, if not permanent, contraction. During this period the placenta should be delivered. If requisite, the hand should be introduced, and the placenta seized, and, with as little force as possible, removed. The uterus should be suffered to do this action by its own expulsive force.

There is much said about placentas being attached to the uterus, adherent placentas, &c. While I am far from doubting this condition of things to sometimes occur, (as in the case of a woman kicked in the side, by name Cornetty, at the Boston Poor-House, in 1844,) I am inclined to think it a rare occurrence. Every placenta is adherent, and I defy any one, in an uterus at its full distention, to peel one off from the uterine

walls. The placenta is always adherent until the uterine contraction slides the uterus away from its surface, leaving it free. When, therefore, the hand is introduced and an "adherent placenta" is discovered, it is but another method of stating that the uterus is found but partially, or not sufficiently contracted to have detached the placenta.

The texture of the placenta is of various characters. Sometimes we have one firm and tough. These can be torn off, with sufficient force, provided a border or an edge be found detached upon which to lay hold, or the uterus may be excited. Sometimes they are soft and pliable, when they are easily torn in pieces. Occasionally a small portion remains attached to the sinuses of the uterus, too small for the uterus to act upon as a foreign body. Great injury has, not unfrequently, been done, by attempting to detach this insignificant portion, under the idea of present hæmorrhage and future inflammation to ensue from its presence. The fact is, that in such a case no blood flows through the placenta, for the character is so changed as not to be able to perform this office. Indeed, I do not think there are many who imagine that a hæmorrhage from the placenta ever occurs,* but from the uterine walls, from which the placenta has been removed:—no blood can flow from the uterine sinuses, for they are firmly plugged by this remaining piece of placenta, so firmly that the plug cannot be easily removed; no hæmorrhage can, therefore, ensue, unless it be from the neighboring sinuses left patulous by the removed portions of the placenta. But if the remaining piece is small, it cannot interfere with the contraction, which will close up the open-mouthed vessels, and thus there will no bleeding ensue from the presence of this small portion remaining.

The only ill result that can therefore occur will be subsequent inflammation. In general this small portion will speedily be detached and discharged by the after-pains—at any rate it cannot be considered to be so fruitful a cause of subsequent inflammation as the forcible attempts to remove it.

It is frequently very difficult to know whether or not the whole placenta is delivered. From the irregular contraction of the

* Vide Dr. McKenzie's paper before the London Medical Society, Dec. 17, 1853.

uterus there frequently appears to be a portion remaining, when in reality the suspected part is the internal surface of the uterus, somewhat rough where the placenta had been attached. In the case of a lady, to whom I was called at the request of the attending physician, a few months since, confined with a premature five months child, the os was rigid five minutes before the child was expelled. It suddenly opened, expelled the fœtus, and as suddenly closed, retaining the placenta within. When I saw her, the after-birth was partially delivered, in a mangled state, and when I removed the remainder (with much difficulty passing my hand within the cavity of the uterus), it was impossible to say whether it was all delivered or not. Interiorly the sensation to the hand indicated that a portion remained, but I concluded that it was but a part of the uterine surface, and I let it alone; the hæmorrhage ceased, and no inflammation occurred, as undoubtedly there would had I attempted to remove this real or supposed portion.

This state of things is of not unfrequent occurrence in abortions and miscarriages. The uterine efforts force through the firm and imperfectly dilated os, the yielding fœtus, adapted by its shape to make an easy exit. When this occurs, the placenta is very generally left behind. Its broad, flaccid mass, resists the attempts of nature, not only to dislodge it, but to force it through the rigid and narrow opening. It, however, not unfrequently succeeds, so far as to separate a portion from its uterine surface, and thus to cause a continued hæmorrhage. The feeble cord is, in the vain attempt to remove it, broken off, and the protruding membranes offer but a feeble hold by which to extract the bulky placenta.

In these cases, it is generally recommended to securely tampon the vagina, and to trust to time for the result. The action is the formation of a clot, thus arresting further hæmorrhage, and the leaving the placenta, either to be expelled from the uterus by the further softening and enlargement of the os uteri, assisted by the normal contractions of the uterus, or assisted by ergot; or to be decomposed, and thus flow away, or be absorbed.

It may readily be seen that there are many risks to which the patient is exposed, from this treatment. First, the clot

intended to restrain further flow, will not be formed until the cavity of the vagina [which is always, no matter how thoroughly plugged, capable of containing more or less blood, perhaps an ounce or two only, but still enough to be often worthy of serious consideration,] is filled. Next, the cavity of the uterus will, not unfrequently, continue to receive blood, and often to a very great amount,—the uterus may be considered capable of expanding to the size to which it had attained when the labor commenced. In an abortion at two or three months, this quantity will not be very large; but if the patient has previously lost any considerable amount, this is deserving of especial attention.

The tampon, therefore, is to be considered a very valuable means of arresting hæmorrhage, in cases of abortion when the patient has not previously flooded, but one of doubtful utility if the hæmorrhage has been profuse, and rarely if ever to be used in any form of hæmorrhage at or near the full time, after the child has been delivered. From the very fact of the tampon shutting the vagina, we are prevented from ascertaining the actual condition of things from time to time, and the result is an entire ignorance whether the continued prostration, the occasional faint feelings, dizziness in the head, *timitus aurium*, &c., be caused by a continued hæmorrhage, or be but the results of the derangement of the circulation, from the previous great loss of blood, or nervous irritability.

The subsequent ill results from the use of the tampon need not here be enlarged upon. It is only necessary to allude to the uncertainty attending its final removal, and the fear of irritation or inflammation attending its too long use; the danger of renewed hæmorrhage from its too speedy removal; the liability of uterine inflammation from the presence of a foreign body, the placenta and clot in the uterus; the chance of phlebitis from the absorption of pus, &c.

It is on this account that writers and practical men of late years have urged the immediate removal of the placenta. In abortions and miscarriages at an early period, generally there is little fear of a want of uterine contraction following. It is not the danger arising from this plan, but the difficulty of effecting it, that has prevented its general adoption.

How shall the small and fragile placenta be seized hold of and withdrawn? Some have recommended the introduction of one finger into the uterus, and bringing down one edge of the placenta, and twisting it round and round, not only thus to detach the entire mass, but to also so shape it that it may the more easily pass through the os. Where this can be done, by all means do it! But it should be remembered that in the great mass of cases, it is impossible to reach the os so as to pass one finger into its cavity, far less to effect any good result, if it arrive there, to say nothing of the utter impossibility of aiding the finger with the thumb of the same hand.

I have, however, effected the desired result, as already reported,* in one case, by passing a small pair of polypus forceps through the os, and thus seizing the placenta, twisting it round, and by one or more operations of this sort completely detaching it and bringing it away. This operation I conceive to be the true method of treating these cases, particularly those in which a few more ounces of blood are to be feared as liable to be fatal. The tampon may be used if early applied, and where the pregnancy had not advanced more than three or four months, but never afterward, unless as a temporary resort, while fitting instruments were obtained.

In cases of flooding at or near full time, when the afterbirth is retained, I have said that after uterine contractions are obtained, the placenta should be speedily delivered, and if necessary, by introducing the hand. When the hand is introduced, especially if cold, uterine action will take place, very generally. But it should be especially remembered that the placenta is not to be violently torn from the uterus, and removed, unless there be uterine action sufficient to indicate to the operator that the uterus does and will fully contract, lest by so doing new sinuses be laid open, and fresh and increased bleeding be the result. Neither should the hand be removed until the uterus contracts down upon it as it recedes.

Some operators have recommended that a fresh lemon be introduced with the hand, and crushed within the cavity of the uterus, that its acid might act as a local stimulant. Others

* *American Medical Monthly*, September, 1854.

advise the injection of a large quantity of cold water. I have never personally used either of them, but while I may allow them merit as adjuvants, they cannot be used to the neglect of the plans and treatment I have already stated. I give it with the more confidence, from the fact that, although having had some experience in troubles of this character, I have never had a patient die, either from the immediate or subsequent effects of hæmorrhage from the uterus, accompanying labor.

Whether, therefore, the hæmorrhage proceeds from the placenta,—as a very few state,—or from the uterine walls, from which it has been torn,—as is the general opinion,—the facts observed by Dr. Mackenzie and others, in their experience, and in experimentation upon the lower animals, all unite in the propriety, aye, the absolute necessity, of removing the placenta. To this I have added some important points, as they seem to me, to guide in performing this serious operation.

But the hæmorrhage is not always arrested by this delivery of the placenta, and sometimes, when this is effected naturally, the hæmorrhage commences for the first time,—how is this to occur, and how shall we meet its exigencies?

It occurs either from a want of, or an irregularity in the character of, the uterine contraction, in the first place, and secondly, from a mechanical impediment to the closing of the uterus, and a consequent hæmorrhage from the patent mouths of the uterine vessels.

The uterus, not unfrequently, seems to have lost its power, and is unable at once to contract persistently and effectually. Its nervous energy is wanting. One seizes it with the hand through the abdominal walls, and it is hard and like a ball under the grasp, but in a few moments it is felt getting softer and softer, and finally the firm mass is not to be found. It seems to have eluded the grasp, but it has only dilated again, again by more external irritation to recontract. But with every dilation its cavity is filled with blood, and with every contraction the gush is perceptible externally! Whence is this? And what is to be done?

Sometimes a firm contraction is felt, and yet the hæmorrhage

continues. This may arise from the hourglass contraction, which occurs alike after the placenta is delivered as before.

This irregularity of contraction is developed in different localities; more frequently, indeed, does it occur from the abnormal action of the circular fibres of the uterus, which, by their exclusive operation, cause that form known as the hourglass; but this same irregularity is manifested also upon the portion below and upon the neck, and thus causing a concealed internal hæmorrhage, by the flow of blood being thus prevented from escaping externally and being perceptible. This form is particularly dangerous, on account of its subtle progress,—not unfrequently the patient is dead before anything is known of it.

In December, 1852, I delivered Mrs. Mason with forceps of a living child, and she was safely put to bed, and I remained with her about an hour. Happening to pass by about an hour afterward, I found that she was complaining of a disturbance of vision, and of hearing water boiling. I was informed that she had not had the least bloody discharge, and that these symptoms had come on after a slight vomiting. On examining the abdomen, the uterus was found much distended, as was afterward known, with clots of blood. This was properly attended to, and she subsequently had no further hæmorrhage.—Many similar cases might be mentioned, for they are sufficiently common to have been noted by every practitioner.

It remains now for me to mention the remaining species of uterine hæmorrhage, and that is where this is kept up from the presence of a mechanical impediment to the contraction of the uterus. This occurs in the following manner:—

When the placenta is expelled from the uterus, some small clots remain, and the uterus not being immediately contracted, the flow continues until a considerable clot fills the cavity of the uterus. When once this occurs, it is almost impossible for any amount of uterine contraction to expel it. It is not a plain, round, smooth mass, but its surface is closely adherent to the uterine parietes. Every one has seen with how much force the blood drawn into a bowl adheres to it, so that the vessel may be everted without disturbing its contents. This adherence is equally strong to the uterine parietes, and far more extensive.

In addition to this, upon the surface to which the placenta was attached, the clot is prolonged into the uterine sinuses, constituting so many firm bonds of adhesion. The strength of this clot is only fully appreciated by those who have attempted to remove them.

Now in all these forms of hæmorrhage, occurring after the delivery of the placenta, but one course of *treatment* is called for. The hand should be passed into the uterus. In the first place its introduction will overcome any irregular contraction, for it should be passed through the hourglass, or any other irregular contraction, until it arrives at the fundus. Next, its presence as a foreign body will stimulate the uterus to expel it, and by so doing effect the desired result. Finally, with the hand we should break up the clots, and sweep them all out of the uterus and vagina. The uterus will then contract down to its proper size. It is then to be retained in that position, by the hand external to the abdomen, by the administration of ergot, &c.

The importance of this method of treatment is not generally acknowledged by practitioners, especially in the last form of hæmorrhage mentioned. Many hesitate upon breaking up these clots, which must be done again and again, as fast as they may form. It appears to many that a clot always serves to arrest a hæmorrhage, and so it does in perhaps every instance except in the hæmorrhage from the uterus after the delivery of the placenta. In this case, as I have attempted already to show, the bulk distends the uterus, and thereby forces open the uterine vessels which are closed, by withdrawing the clot, and the consequent contraction. It should be remembered, and it is generally lost sight of, by the physician, in his anxiety that the patient is as thoroughly bled, whether the blood be drawn into a bowl, is received into the bed clothes around her, or is clotted in the cavity of the uterus.

A most marked instance of the great importance of this method of treatment, occurred in a case in which I had been called in consultation, in consequence of some difficulty occurring in a breech presentation at a first delivery. The patient, a young woman, had been long ill, with intermittent fever, had an enlarged spleen, &c., and was delivered of twins, both breech

presentations. Some ten minutes after the labor was finished, and she had been carefully bandaged, &c., our attention was particularly drawn by a sudden vomiting, almost coincident with which a gush of blood from the vagina was heard. Ergot was given, cold applied to the abdomen, and contractions brought on to such a degree that the uterus was hard and firm under the hand, but larger than when it had contained the placenta. The contraction continued persistent; still she was faint, almost pulseless, covered with a cold sweat, and at intervals much worse. It was evident that the hæmorrhage was continuing internally, although none escaped. But one duty remained. Introducing the hand I swept out every clot, the uterus contracted to a proper size, no further hæmorrhage ensued, and the patient was saved, who, by any other mode of treatment, would have been lost.

In the remarks already made, it will be seen that I have omitted to speak of many methods of assistance usually enumerated, and this is because they are only adjuvants, perhaps of some little value in connection with other treatment, but not to be attended to to the neglect of the means already dilated upon. I will mention two of them. The bandage applied to the abdomen; compression of the descending aorta.

The bandage, or roller, applied generally after labor, is very often productive of more injury than benefit. In cases of severe flooding, it is generally inadmissible, and for the simple reason that it is in the way. Its presence prevents the manipulation of the abdomen, the application of ice, the douche, &c., and prevents the attendant from obtaining the very important information of the presence or absence of uterine contractions. There are some who hasten to put on the bandage after delivery, as if the life of the patient depended upon it. Nature puts no bandage upon the cow, or the sheep, and in the *Lying-In Hospitals of Paris*, the midwives put none on the women. The cows and sheep have no hæmorrhage, and out of some seven hundred women that I saw confined at *l'hôpital des Cliniques*, under the charge of Dubois, I did not see one solitary case of flooding.

A woman, after confinement, needs a bandage just as much,

or rather, upon the same principles, that guide its use in case of tapping for ascites. After all danger of hæmorrhage is passed, a bandage may be applied for support to the abdomen.

When properly done, it should be about half a yard wide, and applied much lower down than usual, the first pin should be placed at the lowest border, near the commencement of the upper third of the thigh. Over the uterus the pressure should not be great, but tighter above it, so that the result is, that the uterus is rather pressed down than upon.

Sometimes it is desirable to place a pad under the bandage, but this should not be upon the uterus, but above it, so as to prevent the uterus from expanding, while at the same time it affords some pressure upon the descending aorta, immediately before its bifurcation.

Compression of the aorta, is a form of treatment often more theoretical than practical, and where, from the thin habit of body, it is practical, it is of less value than would be supposed. In the cases where I attempted to put this suggestion in practice, I have found little benefit to flow from it.

New York, 141 East Thirteenth-street, May 1, 1855.

The Chemical Action of Galvanic Electricity on Organic Tissue.

Communicated to the National Institute, by Prof. STEINER of Baltimore.

In the treatment of paralysis, Golding Bird has shown that much good has resulted from the use of a *continucus* current of galvanic electricity. He proposed to avail himself of this, by blistering a portion of the surface of the paralyzed limb, and then applying a zinc plate on the part of the blistered surface nearest the spine, and a silver plate on the part most distant. These plates are to be connected by a copper wire. A feeble current is thus generated, flowing slowly and continuously. A

singular difference of effect was, however, noticed, as to the chemical action of the two plates on the skin of the patient. Under the silver plate, the sore produced by the blister was rapidly healed, while under the zinc plate a whitish appearance presented itself which soon resulted in the separation of a slough, circumscribed by the dimensions of this plate.

Bird's first knowledge of this fact seems to have been obtained, on the application of such a simple galvanic arrangement to a patient in 1847. The reporter of the case says, "we were not prepared to see a large slough separate from the sore to which the zinc was applied."

This chemical effect of galvanic electricity was noticed fourteen years prior to this, by Dr. Dunbar, a physician of Baltimore, then practising medicine in Winchester, Va. The Doctor, in experimenting on the corpse of a negro who had been executed in that town, noticed that the application of the positive pole of the battery produced a *whitening* or cauterization of the tissue wherever applied. This occurred in 1833, and an account was published of it at that time by this gentleman in the Baltimore Medical and Surgical Journal. The report says:* "I think it proper to notice, at this stage, a peculiar action of the galvanic fluid on the nerve and muscular fibre, observed by myself, and confirmed by one of the gentlemen assisting me. The positive pole, whenever it touched the nerve or muscle, produced an action or whitening very similar to that which is produced by lunar caustic, when applied to an exposed muscle." Prior to this period, there seems to have been no notice of the chemical action of the galvanic current on organic tissue,—and it is proper that the priority of the discovery should therefore be attributed to Dr. Dunbar.

The explanation of this effect has been given, however, very satisfactorily by Bird.† The serum which is effused on blistered surfaces contains chloride of sodium. The effect of the current is to decompose this salt, the metal being eliminated at the negative pole, where from oxidation it becomes soda, while the chlorine eliminated at the positive pole unites with the zinc and

* Baltimore Medical and Surgical Journal, I. 245.

† Bird's Electricity, 133.

forms the chloride of zinc, which is known to be a most active cautery. The cauterization is slow, on account of the gradual formation of small particles of the caustic salt.

This contribution to the history of chemical science is made with the view of having the priority of discovery properly awarded.

PART III.—PROCEEDINGS OF SOCIETIES.

NEW YORK PATHOLOGICAL SOCIETY.

April 11. *Dr. Conant presented three tumors developed in the Brain,* with the history of the case, taken from the note-book of *Dr. Dewees*, the patient being under his professional care. In 1849, the patient applied to *Dr. Dewees* for treatment, suffering then from severe neuralgic pain, over the left orbital and temporal region. He has had syphilis; and at the time of his application for relief, there existed an ulcerative discharge from the nasal cells and frontal sinus. His symptoms were relieved for the time by galvanism. He was very deaf in the right ear; hearing was temporarily restored by eustachian-catheterization. Abscesses formed in the ear, attended by intense pain and profuse discharge, without external perforation of the membrana tympani, by perforating the middle lamina of the membrane, and finding exit through the contiguous integument, midway into the auricle. Several portions of carious bone passed through the posterior nares into the throat. In the following year he experienced a like attack, terminating in a similar manner, by discharge of pus. Some months subsequently, carious bone was discovered about the region of the eustachian tube. Deafness existed, which was temporarily restored, by removal of the bone. In February, 1852, he again applied to *Dr. Dewees* for the same trouble, and was relieved by the same means. Three months after, he suffered from symptoms probably caused by the passage of a gall stone. Two weeks after this, he was seized with tremors, attended by pain over the region of the liver—hepatic abscess was diagnosed. In ten days after, blood, and matter resembling pus, was discharged from the rectum, followed by immediate relief of symptoms. One year after this, June, 1853,

he was again seriously ill; and from the color of the skin, and expression of face, malignant organic disease was at first suspected; but Dr. Dewees finally concluded the brain to be the seat of disease, as for a long time anticipated, although unattended with cerebral pain, or disorder of the intellect. He suffered at the time, continual constipation of the bowels, the power of erection, voluntary and involuntary, was lost; fugitive strabismus, and spasmodic closure of the glottis, if the air swept over the face. In the following month, gradual loss of power of the left side, ensued; soon succeeded by hemiplegia, hiccough, spasmodic belchings; and increased reflex action now took place; and engorgement of the medulla oblongata was diagnosed. The paralysis was partially relieved, the patient being able to walk about, and use the left arm and hand at table. In February, 1854, a jelly-like substance, surrounding a piece of fecal matter, was submitted by Dr. Dewees to the microscope, and found to consist of granules, fusiform and other denominated cancerous cells. Disease of the pancreas was now pronounced upon. In March, a yellowish patch was thrown off from the stomach, and found filled with the sarcina ventriculi; these were apparently destroyed by the administration of hyposulphite of soda. Irregular diplopia and daz- zling of the sight occurred one month later. Then a most remarkable physiological exhibition was observed. The patient could place his right eye on another person, and by voluntary effort move the left eye in any direction, without changing the fixed position of the right eye. This phenomenon could be produced at any time for four days, when the power was gradually lost. On the 31st of May, he was attacked with pain in the side, as in 1852, accompanied by rigors, and the same diagnosis (hepatic abscess) pronounced. He died on the 24th of September. The faithfulness of the diagnosis of Dr. Dewees, will be best understood by description of the morbid condition, as revealed by the knife.

Post mortem examination thirty-six hours after death. Rigor mortis well marked on both sides, there being no apparent difference. Emaciation not extreme, nutrition nearly equal on both sides. The peritoneum was slightly congested. The intestines were small, and seemed much contracted, the villous coat denuded in patches. *Stomach* contracted, its mucous membrane injected, and somewhat softened. *Spleen* normal, *kidneys* quite congested. The *liver* contained in its large lobe, within two inches of its anterior border, a mass, which seemed to be concrete pus, about half an ounce, with slight induration around, and a small mark directly over this mass, resembling a cicatrix. Two other similar marks

were also observed. The organ was diminished in size. The *gall bladder* contained some fifteen concretions, stellate in form, black throughout, the size of an ordinary pea. The *pancreas* was quite abnormal, with internal red, pulpy softening, fatty, and of a peculiar, dark appearance. Adherent to its capsule, was a piece of rough bony matter, strangely developed in three distinct layers of tough, fibrous membrane. The analysis of this substance was as follows :—

Organic matter,	-	-	-	-	-	7.050
Phosphate of Lime,	-	-	-	-	-	77.520
Carbonate of Lime,	-	-	-	-	-	7.000
Magnesia,	-	-	-	-	-	1.600
Phosphate of Soda and Chloride of Sodium,	-	-	-	-	-	6.830
						<hr/> 100.000

Heart and Lungs normal, except some old pleuritic adhesions. *Head*: Upon removing the calvarium, the dura mater seems healthy only on the *left side*, at a point corresponding to the parietal eminence; it was there adherent to the bone, by a surface of an inch in diameter. At this position on the inner side of the dura mater, a *tumor* was found adherent, extending one inch into the substance of the brain; the adjoining portions being much softened. Another *tumor*, of the same size, also attached to the dura mater, was discovered on the *right side*, situated just above the petrous portion of the temporal bone. It extended so far into the substance of the organ, as to produce softening of the outer third of the crus cerebri, and consequently destruction of the *tractus opticus* of that side. In the *pons varolii* was another smaller tumor, situated at the lower part of the pons, slightly to the right of the mesial line. The softening, around this tumor, extended to the upper part of the medulla oblongata, impinging upon the floor of the left ventricle. The pituitary body was shrunk, and exceedingly soft. This condition was predicted by Dr. Dewees, who regarded the nutritive functions to be oppositely affected to those disturbances in cholera, where this body was uniformly found (by Dr. Conant) much hardened.

* * * * *

Dr. Lattimore presented a *tumor* removed by him yesterday. It was situated in the throat, more attached to the left than the right side; no attachment posteriorly; and apparently developed between the two layers of mucous membrane of the soft palate. It had been growing for eighteen years; its progress was arrested for three years,

by the topical use of lunar caustic. During the last few years it has been increasing quite rapidly ; and attained such a size when first seen, as seriously to impede respiration and deglutition. Its removal was not attended with much difficulty ; the attachment on the left side was divided by a scalpel, and the operation completed by the finger. Dr. Isaacs placed a portion of the tumor under the microscope, and found it to consist principally of fibrous tissue, and it also contained a good many cells. He would not pronounce as to its nature, from the short examination made.

Prof. W. H. Van Buren exhibited an enormous specimen of *Exostosis*, involving the whole of the left *os innominatum*, taken from a patient in whom he had performed amputation of the hip-joint, for a similar disease of the *os femoris*, nearly five years before, and who had recently died.

The morbid growth had been reproduced in the acetabulum within a year after the amputation, although at the time of the operation it was perfectly healthy, as well as the head of the femur, which was also presented to the Society. Since the disease reappeared, it had continued to grow steadily and regularly until it had reached its present immense size and weight,—eighteen pounds. The patient died at a distance from the city, with obscure cerebral symptoms, not immediately connected with the present disease.

The particulars of this case were reported in full to the Academy of Medicine, soon after the patient's recovery from the amputation at the hip-joint, with wood-cuts representing the disease removed at that time (May, 1850), and the morbid specimens were presented at one of the meetings of this Society. The exhibition of the present specimen, therefore, completes the pathological history of the case.

In resuming the history of the case, from the period where the record in the Transactions of the Academy leaves it, there are but a few circumstances of importance to be noticed. The morbid growth spread from the acetabulum, where it first reappeared, until it gradually involved the whole bone. It pushed the soft parts before it, causing constant and sometimes severe pain, presenting everywhere an irregularly nodulated surface, very hard to the touch. It projected upward, until it came in contact with the lower ribs, and growing inwardly toward the median line, it encroached materially, toward the close of the patient's life, upon the pelvic and abdominal cavities, so as to interfere with the functions of the rectum and bladder. The patient used opium habitually to relieve his pain, but when

last seen by Dr. Van Buren, in the Spring of 1854, four years after the operation, his general health was still good; he ate and slept well, and was not losing flesh. Soon after this he left the city to reside in New Jersey, where he died in February, 1855. No accurate account has been received of the immediate cause of death, which seems to have been preceded by cerebral symptoms. Through the kindness of Dr. A. T. Pettit, of Long Branch, who examined the body, the specimen now before the Society was obtained.

"It is only by comparing together the three preparations, which comprise the whole of the femur, in two pieces, and the *os innominatum*, and which are now placed in their natural relation to each other, that the true nature of this extraordinary disease can be thoroughly comprehended. The first is a dried mass of bone, weighing eight and a half pounds, comprising a little more than the lower half of the *os femoris*, where it was sawn through at the first operation to which the patient was subjected, viz: amputation of the thigh, in May, 1848. This tumor had been growing for a period of sixteen years. It is a lamellated exostosis sprouting from the whole surface of the *os femoris* throughout its lower half, including its condyles and their articular surface.

"The second specimen is the remaining, or upper portion of the femur, with the reproduced disease growing from its lower extremity; this is preserved in spirits, and shows the attachment of the sciatic nerve to the bony growth by which it is surrounded, thus explaining the severe character of the pain, for the relief of which mainly, the second operation was undertaken. This is also a pure bony growth, or simple exostosis.

"The third and last is the huge mass, weighing eighteen pounds, and consisting of an osseous outgrowth from the *os innominatum*, and apparently from every portion of the surface of this bone. This recent preparation is evidently identical in character with the disease of the femur. It has been examined microscopically, by Dr. Isaacs and myself, and the only histological elements which it contains, are those of true bone and fibrous tissue. At one point striped muscular fibre was found in the interior of a cancellated bony nodule corresponding in position to the dorsum of the ilium; this was supposed to be a portion of the glutei muscles included in the bony growth, and not yet deprived of its characteristic appearance. [Drawings of these microscopical appearances were submitted by Dr. Van Buren.]

"The surface of this tumor is covered by a layer of tissue varying in thickness at different points from the fraction of a line to half an

inch and more. This is nothing more than periosteum ; under the microscope, it consists of white and yellow elastic fibrous tissue only. When I first examined the specimen from the femur, seven years ago, I was under the impression that this contained cartilage cells; but in this specimen there are no cells of any kind whatever, except those which characterize the processes of exudation and transition, as met with in the reparative process, and in benign growths.

"The specimens before the Society, therefore, are simple exostosis, or bony outgrowth; and there is nothing in their histological character which warrants any suspicion of cancer, although the disease was so often reproduced."

Dr. Stephen Smith then presented a specimen of *Rupture of the Bladder*. *Mr. McA—*, æt. 38, Irishman, of very intemperate habits, was admitted to the wards of the second surgical division of Bellevue Hospital, April 7th, 1855. From his previous history it appears that on the evening of the 3d inst., while intoxicated, he received a kick in the lower part of the belly, which gave rise to severe pain, and an immediate and ineffectual effort to pass water. He threw himself upon the floor, complained bitterly of pain in the lower part of the abdomen, and accused his antagonist of killing him. He passed a wretched night, alternately lying down and rising to pass his urine. On the following morning a dispensary physician was called in, who found him dressed and sitting up, and complaining only of the retention of urine. His pulse was natural, and his general symptoms not indicative of any serious injury; the hypogastrium gave evidence of no unusual distention of the bladder, and there was no marked tenderness of the abdomen. Not having a catheter with him, the physician directed *McA.* to go to the dispensary at the surgeon's hour, and have the water removed by a catheter. He went accordingly, a distance of nearly half a mile, leaning upon the arm of his wife, and walking in a semi-erect attitude. The surgeon drew off nearly a pint of clear urine. This operation gave considerable relief to his most urgent symptom, and he returned home with much greater ease, walking nearly erect. During the day he began to suffer from irritability of the stomach, retching and vomiting, and succeeded in passing voluntarily some bloody urine. He passed a restless night, the vomiting now being the severest symptom. During the second day he continued vomiting, but passed his urine in small quantities. On the morning of the third day the dispensary physician again visited him, and drew off his water. He was complaining only

of excessive vomiting. During the third and fourth days he continued to vomit, but passed his water in sufficient quantities to relieve his distress.

On entering the hospital, he was in a very prostrated condition, and complained again of retention of urine. A catheter was readily passed, and removed about a pint of water, which relieved him. On the following morning, he suffered greatly from irritability of the stomach, but had again succeeded in voluntarily relieving his bladder of its contents. There were no external marks of injury, and no marked tenderness over the abdomen, which was, however, tympanitic. His water was drawn off in the evening with the catheter, in less quantity than before. He was in a very low condition, and died during the night.

On making a post-mortem examination, a gallon or more of serous fluid, having no urinous odor, was found in the peritoneal cavity. There were no signs of inflammation in the abdominal cavity, no plastic exudation, or even unusual injection of the peritoneum. The bladder was found firmly contracted, having a vertical rent in the centre of the superior part of its posterior wall, an inch in length, involving all its coats. The opening was patulous, leaving the passage from the cavity of the bladder to the peritoneum perfectly free. The mucous membrane of the bladder partially filled the rent; the peritoneum surrounding the rupture was somewhat injected, and the mucous membrane of the bladder exhibited several ecchymosed patches. No other morbid appearances were observed in the body.

Dr. Markoe referred to a case of *Ulcer of the Tibia*, presented by him some time ago. He wished to complete its history—it was undoubtedly malignant, the disease having reappeared in the groin.

AMERICAN MEDICAL ASSOCIATION.

The eighth annual meeting of this body was held at Philadelphia, according to the notice given, commencing its session on the first of May, and continuing to sit four days. Though not able to be present, we have received very full accounts of the proceedings from various friends who were there, and had prepared a very full synopsis

for the MONTHLY.* This we feel compelled to exclude, in consequence of the pressure on our pages, contenting ourselves with the insertion of the speech of the President, Dr. Pope, of St. Louis, and which is of more than passing interest, and of some lines written by Dr. Holmes, of Boston, and circulated among the members, and for which we are indebted to the Boston Journal. There were many things of interest said and done, and a very marked absence of unpleasant jars. Dr. George B. Wood was made president for the ensuing year, and an excellent selection it was, and Detroit was chosen for the place of the next meeting. Nashville pressed very hard for it, but in vain, but we hope, and have no doubt, that their next attempt will be successful.

Of the hospitality, both public and private, of Philadelphia, all speak with delight, and agree that no effort was spared to make the occasion what it most decidedly was, a delightful reunion.

The President, Dr. CHARLES A. POPE, being called upon, delivered the annual address, as follows :—

Gentlemen : With feelings of grateful pleasure, I meet you, and greet you, on this occasion.

For high and useful purposes, have we assembled from the wide extent of our beloved country. The elevation of a noble profession—the promotion of science—the good of humanity—these have been, are, and will continue to be, the objects of our Association. Whether we have, thus far, done much or little, our sole aim has been the advancement of the best interests of our fellow men. I shall not assert that we have done as much as we might have done, or that the course hitherto pursued by us, is so perfect, as to admit of no improvement. Were such the fact, and were the Association a firmly established institution, I might have experienced more hesitation in the selection of a theme for the present occasion. And since we can not, as yet, I think, urge such a claim, the few suggestions which I shall offer, are made with becoming diffidence, but at the same time with a deep sense of their importance to the welfare and perpetuity of our Association.

Some strictures on our proceedings, in medical and other journals, have appeared within the last year, as well as in previous years. I shall not here blame the authors of them. They are, doubtless, as proud of our noble profession as we, and equally with us, anxious for the advancement of its interests and its honor. I thank them for their suggestions. All of us are ready to hear them and to profit by them. If any more effectual mode of arriving at truth can be devised,

* To the New Jersey Reporter we are also indebted for a proof sheet containing its record of the meeting. Will the editor accept our thanks for the attention.

than that which we have heretofore pursued, all of us are ready to follow it, and would rather thank than quarrel with those who may propose it.

Physicians have an almost superhuman mission to fulfil. The goal of their ambition, and their hopes, and their duty, stands at the *ultima thule* of human capacity—nay, rather beyond it. It cannot, indeed, be said, that their duties are beyond their powers, but their ambition, their hopes, their wishes, certainly are. They would gladly know, not only all the secrets of organization, but those also of physiology, pathology, and therapeutics. To arrive at such knowledge, is, perhaps, beyond the attainment of the human mind. Multiform are the elements which enter into the problem of health and disease. Health is, itself, a constant change of composition—diseases are ever-varying changes, supervening on this.

Do we know, with all our advancement, and after all the toil of our predecessors for two thousand years, the exact changes in which any disease, the fevers for instance, consists? And even when we shall have learned these, so as to understand them as well as the most ordinary chemical changes, the ever-varying character of most diseases, and the inward disturbing influences upon them, of the mental and moral emotions, would require to follow them, a continued stretch and power of intellect, of which it is doubtful if man be capable. This exactness of knowledge is not, I grant, necessary to the very successful practice of medicine. Our profession can render great and important services to man without it, but with it, it would be still more serviceable. To it our ambition tends. To this perfect knowledge we aspire. Although we may never reach, we can yet eternally approach it. In the vast region of our researches, there is no probability that human genius will ever, Alexander like, weep for the want of unconquered provinces. Beyond the conquests of the future heroes of the profession, there will always be a boundless field for the ambitious and philanthropic explorer. In the language of a Western student, "the science of medicine, like the liver of Prometheus, is sufficient to glut the eagles of all time."

The object of this Association is to do something to advance the profession toward the far-distant goal of perfection—to aid the solution of some of the problems and enigmas of life and organization—to add some material to the growing temple, whose foundations were so firmly laid by the Coan sage—and to do its part, as best it may, in the cause of humanity. Nor do I think that, so far, it has altogether failed. Many valuable contributions to science have been elicited—professional ambition has been stimulated—an *esprit de corps* has been successfully evoked and established. The strength of the profession has acquired additional power by the union of its members. This Association has been to physicians, what the railroad and electric wires are to commerce, and the interchange of useful knowledge to States and nations. It has made us one, and as I have just remarked, in unity there is power. This Association has stimulated thought. Chaotic and void, would forever remain the masses of facts,

accumulated by the observations of ages, but for the coördinating and logical power of reason. It sits in judgment on the silent phenomena, as a "refiner of fire, and a purifier of silver." It forces the voiceless facts to mount the tripod of the oracle, and speak forth words of wisdom. The scalpel, the crucible, the microscope, may be subsidiary to its purposes and ends, but they cannot supply its place. Fixed and patient thought, in medicine, as in other departments of science, is the Aladdin's lamp, that lights the footsteps of the discoverer. To stimulate the attention and thought, is to accelerate many a new discovery—to hasten the advent and establishment of important principles yet in the womb of the future. May not our Association do this more effectually than it has hitherto done?

Let all the contributions be read and attentively considered. Such a course would certainly be more encouraging, as well as more respectful, to their authors. Let the reports be deliberately and fully discussed, and let them go forth to the world with the sanction or criticism of the Association. This would require time, it is true, but if we have time to meet at all, surely a few days would make but little difference. The good that would be effected, would yield a tenfold compensation for the time employed. Every one must admit that three or four days is too short a time for the Association rightly to fulfil its annual mission.

I would, moreover, respectfully suggest that time be taken for the discussion of some of the leading topics of medical philosophy. Among these, may be mentioned the nature, causes, and treatment of cholera, yellow fever, *et cetera*—hygiene, and the laws of health affecting masses of men—quarantine—the causes of mortality among children—the chemical and vital doctrines of life. Questions like these, indicated a year in advance for discussion, would excite a carefulness of investigation, and a degree of attention and thought which could not fail to clear away much of the darkness and doubt in which they are yet shrouded. Nothing so sharpens the intellectual powers as public debate. It fixes attention, and strains to the utmost every faculty. I have no hesitation in saying that facts enough have been accumulated to establish great and general principles, of which the medical world is yet in ignorance or doubt. Nothing would contribute more to demonstrate these principles than the collision of matured intellects in public debate. What a mass of facts, and argument, and demonstration, would be brought to bear, on any of the subjects alluded to, if some of the best minds in the profession were to debate them, after a year's preparation! Observed facts are the crude materials of science—the intellect is the master builder of its august temple.

I make these suggestions for your consideration. All the scientific meetings in this country and in Europe, employ more time than ours has hitherto employed. Evidently we must protract our sessions, if we would render them as serviceable to science as they may be. No member of the Association will be required to remain longer than suits his wishes or convenience. Some fifty or sixty, more or less,

would always be found to listen with eagerness to scientific papers, and engage with pleasure in scientific discussions.

The time has probably arrived, for a change in our plan of organization, which will admit of the selection of a permanent place for the future meetings of the Association. There are evident advantages incident to both the migratory and stationary plans. These might, perhaps, be easily reconciled, and secured. A proposition, if I mistake not, was made, some years ago, by the Smithsonian Institution, and I would respectfully suggest, whether it would not be in accordance with the best interests of the Association, to hold biennial meetings in Washington, and the alternate ones, as now, at different points of our common country. We might thus secure all the advantages of a fixed abode, in the way of preserving the archives, making collections, etc., while by meeting in various localities, we could not fail to excite that wide-spread interest among the profession, and obtain such accessions of new members as would greatly enhance the high and useful objects of our Association. Should this proposal meet with your approbation, I would further intimate that policy would perhaps require the meetings of the Association at the national capitol, to be held in the years of the short sessions of Congress.

I shall say but little of the legislative duties of the Association. I shall say nothing of the propriety or impropriety of getting laws passed to regulate the practice of medicine, and furnish standards for candidates for the Doctorate. Perhaps the Association can do but little in this respect. Ours is a popular government, and the people are disposed to allow the largest freedom in everything pertaining to medicine, medical schools, and physicians. Laws passed against quackery one year, are revoked the next. Our country is the paradise of quacks. All good things have their attendant evils, and this unbridled liberty is one of the evils of a popular government. May we not hope, however, that even this evil may disappear, as general education and the cultivation of the masses advance? At any rate the people are not yet disposed to put down the quacks, nor to require too high a degree of qualification for those of the regular profession. After all, laws can make only mediocre physicians. They can require the candidates to know only so much—to be qualified to a certain degree; and this degree will always be far lower than that to which the true lovers of knowledge would attain, without any legislation on the subject. The greater lights of the profession cannot be manufactured after any process of legislative enactment. Thirst of knowledge, self-love, philanthropy, burning ambition—these make the great physician and surgeon. These have made all the worthies of the past—not legislation. Legislation cannot drive the drone to the proud heights of professional eminence. When these heights are reached, it will be seen that the successful aspirant has been stimulated by a stronger power.

To him the laurel blossoms of renown and the life-giving mission of his art, are dearer and more attractive than was the mystic bough of

the sibyl, to the eager Æneas, or, than the golden apples, guarded by sleepless dragons, to the Hesperian daughters.

Whatever course you may think proper to pursue, I am sure that your objects will be, the advancement of science—the good of mankind—the honor and glory of the profession. We have the dignity and character of a noble calling to sustain—of a profession which has numbered, for two thousand years and more, some of the wisest and best men in all countries and all times. It is no trivial matter to sustain the rank and respectability of a vocation which can boast of a Hippocrates, a Harvey, a Hunter, of the most erudite and beneficent of sages and philanthropists the world ever saw—of a profession which has furnished to every nation its *clarum et venerabile nomen*.

On the eve of the battle of the pyramids, Napoleon exclaimed : Soldiers ! from the height of yon monuments, forty centuries look down upon you. Gentlemen, from the heights of past ages, countless worthies of our godlike profession point, and beckon to a goal more elevated than that which attracts legislators and conquerors, Solons and Cæsars.

On motion of Dr. J. B. Biddle,

Resolved, That the thanks of the Association are unanimously tendered to the President, for the able and eloquent address just delivered; also, that a copy be obtained for publication.

The following are the stanzas, by Dr. O. W. HOLMES, before alluded to :

A TRIPLE health to Friendship, Science, Art,
From heads and hands that own a common heart !
Each in its turn the others' willing slave ;
Each in its season strong to heal and save.

Friendship's blind service, in the hour of need,
Wipes the pale face—and lets the victim bleed.
Science must stop to reason and explain ;
ART claps his finger on the streaming vein.

But ART's brief memory fails the hand at last ;
Then SCIENCE lifts the flambeau of the past.
When both their equal impotence deplore—
When Learning sighs, and Skill can do no more,
The tear of FRIENDSHIP pours its heavenly balm,
And soothes the pang no anodyne may calm !

PART IV.—CHRONICLE OF MEDICAL PROGRESS.

[Translations from the German, under this head, are made by Dr. H. N. Bennett.]

Miasmatic Intermittent and Remittent Fevers; use of the Sulphate of Cinchonia as a Succedaneum for the Sulphate of Quinia. By Dr. VAHU. Translated for the MONTHLY, by P. F. C. DESLANDES, Bachelier ès Lettres.

Mr. A. Delondre, the distinguished chemist, having been informed of our approaching departure for Algiers, that classic land of miasmatic endemo-epidemics, offered to give us a certain quantity of sulphate of cinchonia, prepared by himself, in order that we might, when the occasion should present itself, use this alkaloid and compare its action to the well known action of its congeners.

This is the way M. Delondre argues: Before the discovery and insulation of quinia, the grey quina of Loxa was used in preference, to combat intermittent fevers and attacks of malignant fevers, and the results were nearly the same as those obtained since with the sulphate of quinia. Only it was more difficult to administer to the patient a dose, always large, of powder of quina, than it is in our days to make them swallow a few pills of a concentrated solution of sulphate of quinine. Now in the grey quina of Loxa, so much used during the first quarter of this century, the active principle was undoubtedly Cinchonia, since chemical analyses have taught us later that grey quina contains a large relative proportion of cinchonia and very little quinia, whilst this predominates in the yellow bark.

At the time of the discovery of cinchonia, the learned and venerable M. Bally, physician of the Hotel-Dieu, a sagacious and distinguished experimentalist, tried to combat ague with the sulphate of that alkaloid, and obtained, in the intermittent fevers of Paris, a success which proved to him that $4\frac{1}{2}$ or 6 grains of it sufficed often to prevent the return of the attacks. Why the sulphate of cinchonia was soon abandoned for the sulphate of quinia we do not know; perhaps the use of cinchonia was not persevered in long enough. However it be, exclusive preference was given to the sulphate of quinia, a preference which, after the results we have obtained, seems to have been tainted with a little partiality. A more thorough investigation ought perhaps to have been made, in order the better to ascertain whether the effects of the sulphate of quinia, a medicine always very expensive,

were in reality superior to those of the sulphate of cinchonia, a much cheaper remedy.

We have then accepted with joy the disinterested offer of M. De-londre, and without desiring to give too premature a judgment upon anything, we state, even now, that, from what we have seen in Africa, we consider the sulphate of cinchonia a succedaneum provided by nature itself for the sulphate of quinia.

We are aware that many eminent men will say : as regards cinchonia, the question is settled ; the preference given for so many years to the sulphate of quinia shows enough its superiority. We will answer that one day (not very many years ago) it was maintained that carriages could be moved by steam, when a member of the Institute, very learned otherwise, asserted, basing his views on theories which seemed irrefutable, that the wheels of a locomotive could revolve on themselves, but never could describe a cycloid, and therefore steam locomotion could not be applied to railroads. Since then practical men have answered the illustrious theorist, who is obliged to travel 60 miles an hour when he goes on a journey.

We say then that the use of cinchonia in the treatment of fevers is to be tried by practical men, advantageously situated for that purpose. We say advantageously situated, for the results of the use of this remedy are really conclusive only when they are obtained in countries subject to miasmatic fevers, such as Algiers, for example ; and because we, who have practiced medicine in Paris for fifteen years, declare that we shall not receive as peremptory trials those made on fever patients in Paris ; for there we have no miasmatic ague, and the intermittent fevers of the capital may be arrested and cured by a simple medication, and in the majority of cases without the use of the sulphate of quinia.

We leave our readers to judge of the use we have made of the sulphate of cinchonia in cases of intermittent and remittent fevers in Africa. We give thirteen cases, which might already appear conclusive, but we do not wish to be accused of being too hasty in our judgment ; here we can experiment largely and continually. We live in a town of the province of Algiers (Cherchel) where the population is subject during the whole year to miasmatic fevers, but particularly from July to November ; colonial villages very near us furnish us besides with a very large number of ague patients. On one side we have acted with the greatest prudence in order not to incur the reproach of endangering the life of the patients, by using a remedy uncertain in its effects ; and on the other side we have acted with

the greatest possible certainty, in giving cinchonia only in well marked cases ; therefore we have given it particularly to patients attacked for the first time, and whose constitution was not yet deteriorated by the saburral condition which accompanies ague in almost every case. Here the sulphate of quinine, given for eight successive days in very large doses (15 grains and more every 24 hours), produces absolutely no effect, if the treatment has not been begun by an emetic or a purgative. We have here numerous examples of what we advance, in patients who wished to treat themselves without calling a physician, and who imagined they had only to swallow pills of sulphate of quinia to be cured.

As soon as the primæ viæ are cleared, the sulphate acts ; we have then placed ourselves, as regards the administration of the salt of cinchonia, absolutely in the same relative position as when we have used the sulphate of quinia.

To abbreviate as much as possible our remarks, we have not spoken of the diet. We must then say once for all that our fever patients are always ordered to take the most nourishing and most tonic food ; they eat as much as they like of meat, fish and vegetables, and drink about the third of a pint of wine a day.

One word more, as regards the meaning of the word *succedaneum*, as understood by some physicians, who pretend that a medicament can be called *succedaneum* only when it acts after the specific remedy has failed. It seems to us that to mention such an opinion is to refute it.

CASE I.—*Quotidian Fever*.—11 o'clock in the morning. N—, laborer at Cherchel, has had two fits of fever, which lasted from 11 o'clock in the morning till four o'clock in the afternoon. The three intermissions nearly equal. Treated the 20th of September, 1853, the third day of the disease. Marked gastric disturbance.

Sept. 20th, at 8 in the morning : Emetic ; Ipecac. gra. xv. ; tartar emetic, gra. jss. No exacerbation. The 21st : gra. xii. of the sulphate of cinchonia, in the form of aqueous solution, at 7 o'clock in the morning. The exacerbation precedes the usual hour. Chills at half past 9 as violent as the preceding ; vomiting follows the exacerbation. The heat is not so great and lasts a shorter time than the preceding day ; no sweat. The 22d : gra. xii. at 5 o'clock in the morning ; no exacerbation, no heat, no cephalalgia. The 23d ; gra. xii. at 5 o'clock in the morning ; nothing to record, no chills, no heat, no cephalalgia. The 24th : gra. ix. at 5 o'clock in the morn-

ing: nothing to record. The 25th: more cinchonia; wine of gentian as a tonic (Extract of gentian 3j.; red wine, ʒij. $\frac{1}{2}$). No return of the exacerbations and the patient resumes his work.

CASE II.—*Remittent Fever*.—B——, gardener in the neighborhood of Cherchel, has been ill several days, cannot tell exactly the period of the first invasion of the disease. Treated for the first time, September the 29th, 1853. Marked gastro-intestinal derangement. The 29th: Ipec. gra. xv.; tartar emetic, gra. jss. The 30th: Sulphate of soda, ʒij. Oct. 1st, at 8 o'clock in the morning: gra. viiss. of sulphate of cinchonia; the dose repeated at 11, and at 2 o'clock in the afternoon. Exacerbation at 4 o'clock in the evening; it is not so strong; cephalalgia less violent. The fit lasts only two hours instead of four.

Oct. 2d: gra. viiss., repeated three times, and at the same hours as the day before. A little cephalalgia only from 4 to 5 in the evening. Oct. 3d: gra. viiss. at 8 o'clock in the morning; at 3 o'clock in the evening, gra. xii. Cephalalgia at 8 o'clock in the evening; it lasts the whole night. No tinnitus aurium, notwithstanding the xixss. grains taken. Oct. 4th: on account of the cephalalgia, which lasted all night, given gra. viiss. of the sulphate, at 5 o'clock in the evening; and gra. xii. at 8 in the evening. At 9 o'clock in the evening, slight headache, which lasts half an hour; perspiration, which continues for three hours; no tinnitus aurium.

Oct. 5th: gra. xv. of the sulphate, at 3 o'clock in the evening; no exacerbation, no cephalalgia; sleeps well the whole night. Oct. 6th: gra. xv. at 3 o'clock in the afternoon; at 9 o'clock in the evening, cephalalgia with tinnitus aurium; heat that lasts one hour; no chills; sleeps all night. Oct. 7th: xx. gra. at 3 o'clock in the afternoon; nothing to record. Oct. 8th, 9th, 10th, 11th, and 12th, nothing.

CASE III.—*Tertian Fever*.—Days constant, 8 o'clock in the morning. B——, farmer, has been in Africa for two years, had, six months ago, a quotidian fever, treated by sulphate of quinia, and cured; has had three exacerbations before the treatment began, on the 6th of October, 1853.

Oct. 6th: vi. gra. of sulphate of cinchonia, at 4 o'clock in the morning; at 9, one hour after the usual time, heat for one hour, followed by abundant perspiration; sleeps from 11 o'clock in the morning till 12; no traces of exacerbation. Oct. 7th: at 4 o'clock in

the morning, xv. gra. of sulphate of cinchonia ; no exacerbation ; no cephalalgia. The sulphate was given that day, on account of the gravity of the exacerbation of the day before, lest the fever should become remittent. Oct. 8th (day of exacerbation): at 4 o'clock in the morning, vii. gra. of the sulphate ; no exacerbation. Oct. 9th : nothing. Oct. 10 : vi. gra. at 4 o'clock in the morning ; no exacerbation. Oct. 11th and 12th, nothing.

CASE IV.—*Quotidian Fever*.—10 o'clock in the morning. L—, carrier, relapse, has been treated for the same disease, from the 10th to the 27th of September, with sulphate of quinia. Treated for the first time by us, October 7th, 1853. Marked gastric derangement. Draught composed of Ipec. gra. xv., tartar emetic gra. jss. Oct. 8th: at 6 o'clock in the morning gra. xii. of sulphate of cinchonia. From half past 3 o'clock in the afternoon till 7 in the evening, great cephalalgia, no heat of the skin, no sweat. Oct. 9th : at 11 o'clock in the morning gra. xv. of the sulphate, no exacerbation, no cephalalgia. Oct. 10th : cephalalgia from 6 to 8 in the morning ; xv. gra. of the sulphate at 11 o'clock in the morning ; cephalalgia less intense than the preceding days, from 4 to 6 in the morning ; no heat, no sweat. Oct. 11th : gra. viiss. at midnight, and gra. viiss. at 2 o'clock in the morning ; cephalalgia less intense than the preceding days, from 4 to 6 o'clock in the morning ; no heat, no sweat. Oct. 12th : gra. viiss. at midnight, as much at 2 in the morning ; nothing. From the 13th to the 20th of October, nothing.

CASE V.—*Tertian Fever*.—Days constant, 7 o'clock in the morning. D—, muleteer, has never been sick since his arrival in Africa. Three exacerbations before treatment. Twice the fever came on at 7 o'clock in the morning, and left at 2 in the afternoon ; the third exacerbation commenced at 4 in the morning.

The three stages are well characterized ; no continued cephalalgia. The patient has had recourse to no treatment. Oct. 12th : gra. xv. of sulphate of cinchonia, at midnight. Complete absence of exacerbation. Oct. 13th, nothing. Oct. 14th : gra. xv. at midnight ; no exacerbation. Oct. 15th, 16th, 17th, 18th, 19th, and 20th, nothing.

CASE VI.—*Remittent Fever*.—Marked chills at 2 o'clock in the afternoon. A—, farmer, has never been ill during eighteen months ; that he has lived in Africa. Three days ago he was attacked with remittent fever, accompanied with obstinate cephalalgia. Oct. 16th :

at 9 o'clock in the morning, draught composed of Ipec. gra. xv. and tartar emetic gra. jss., to combat a well marked saburral condition; at 11 o'clock in the morning of the same day xv. gra. of the sulphate of cinchonia, which are almost immediately thrown up by the efforts at vomiting induced by the Ipec. I had prescribed cinchonia, to be administered only after the effect of the emetic had passed off entirely. The exacerbation, characterized by chills, comes on at 45 minutes past 1 o'clock in the afternoon; the cephalalgia, less violent than the preceding day, continues the whole of the day and night. Oct. 17th: gra. xv. at 11 o'clock in the morning; no cephalalgia, no chills. Oct. 18th: gra. xx. at 11 o'clock. Nothing. Oct. 19th: gra. xx. at 11 o'clock. Nothing. From the 20th to the 24th of October, nothing.

CASE VII.—*Remittent Fever.*—R——, farmer, had, two months ago, irregular fits of fever, which he treated by pills of the sulphate of quinia; has not felt anything since that period. Three days ago, he was attacked with remittent fever; treated for the first time, Sept. 21st, 1853. Sept. 21st, on account of the concomitant gastric disturbance, given a draught composed of Ipec. gra. xv. and tartar emetic gr. jss. Cephalalgia not so great. Sept. 22d: at 8 o'clock in the morning, gra. xii. of the sulphate of cinchonia; little cephalalgia until 3 o'clock in the afternoon, when it increases, and lasts until the 23d, at 6 in the morning. Sept. 23d: gra. viiiss. at 8 o'clock in the morning, and viiiss. at 3 o'clock in the afternoon. Slight cephalalgia from 4 to 6 o'clock in the evening. Sept. 24th: gra. viiiss. at noon; no headache, no heat. Sept. 25th: gra. viiiss. at noon; nothing. From the 26th to the 30th of September, nothing.

CASE VIII.—*Tertian Fever.*—Days not constant, 1 o'clock in the afternoon. Diarrhœa as complication. B——, gardener, has had diarrhœa for a month. The fever is characterized by five exacerbations, which lasted from 1 o'clock in the afternoon till 6 o'clock in the evening. The period of heat is longer than the two others. Sept. 20th: \mathfrak{z} j. sulphate of soda, at 8 o'clock in the morning. Sept. 21st: gra. xii. of sulphate of cinchonia, at 9 in the morning; the exacerbation occurs at half past 1 in the afternoon, half an hour later than usual. The sweat is less abundant, and that period of the fit lasts a shorter time than usual. The exacerbation is quite over at 5 in the evening. Sept. 22d: nothing to record. Sept. 23d: xii. gra. of sulphate of cinchonia, at 9 o'clock in the morning; exacerbation

at 10 o'clock in the morning ; it begins with the heat, and ends by a great perspiration, at a quarter past 11 ; duration, one hour and a quarter ; comes on three and a half hours sooner. Sept. 25th : gra. xii. at 3 o'clock in the morning ; no exacerbation at 1 in the afternoon, the usual time of the fever ; a slight cephalalgia, which lasts one-quarter of an hour ; since then, nothing ; a good night. Sept. 27th : gra. ivss. at 3 in the morning ; nothing. From Sept. 29th to Oct. 6th, nothing. Oct. 7th : at 1 o'clock in the afternoon, violent cephalalgia until 5 in the evening. Oct. 8th : cephalalgia immediately after the administration of the xii. gra. of sulphate of cinchonia, at 9 o'clock in the morning ; it lasts an hour. Oct. 9th : xii. gra. at 5 o'clock in the morning ; cephalalgia from 1 o'clock in the morning till 8. Oct. 10th : gra. xii. at 5 in the morning ; nothing. From the 11th to the 18th of October, nothing.

CASE IX.—*Tertian Fever*.—Days constant, 11 o'clock in the morning. G——, shoemaker, three exacerbations before the treatment ; three well characterized stages ; total duration, from 11 o'clock in the morning till 4 o'clock in the afternoon ; from that moment no cephalalgia. Sept. 21st : $\frac{3}{4}$ ss. of sulphate of soda, to remedy the gastro-intestinal derangement. Sept. 22d : gra. xii. of sulphate of cinchonia, at 9 o'clock in the morning. At 11 o'clock a little cephalalgia ; no heat, no sweat. Sept. 23d : nothing to record. Sept. 24th : gra. xii. at 7 o'clock in the morning ; no exacerbation. Sept. 25th : nothing to record. Sept. 26th : gra. xii. at 7 in the morning ; no exacerbation. Sept. 27th, 28th, 29th, and 30th, nothing.

CASE X.—*Remittent Fever*.—F——, farmer, had, two years ago, for ten days, a remittent fever, for which he was treated with pills of sulphate of quinia. Sept. 21st : $\frac{3}{4}$ ss. of sulphate of soda. Sept. 22d : the tongue remains white, and the coating is as thick as the day before. Ipec. gra. xv. and tartar emetic jss. gra. Sept. 23d : gra. xii. of sulphate of cinchonia, at 5 in the morning ; thrown up immediately. Cephalalgia the whole of the day. Sept. 24th : gra. xii. at 5 in the morning ; tinnitus aurium at 8 o'clock in the morning ; chills at three o'clock, and until 4 o'clock in the afternoon ; no heat ; cephalalgia from 4 o'clock throughout the night. Sept. 25th : gra. viiss. at 5 o'clock in the morning, and gra. viiss. at 11 o'clock in the morning. Sept. 26th : constant headache during the whole of the 25th, but it is not so great to-day. Spent a tolerably good night.

Sept. 26th : in the morning there is less cephalalgia. Sept. 27th : gra. viiss. at 5 in the morning, and repeated at 11 in the morning. The headache is decreasing in intensity ; no chills, no heat, no sweat. Sept. 28th : gra. vi. at 11 o'clock in the morning ; nothing. Sept. 29th : gra. vi. at 11 o'clock in the morning ; nothing. Sept. 30th, and Oct. 1st and 2d : gra. vi. at 11 o'clock in the morning ; nothing. Oct. 3d : wine of extract of gentian. Oct. 4th : cephalalgia from 2 o'clock in the afternoon till the next day. Oct. 5th : gra. vi. at 11 o'clock in the morning ; cephalalgia from 2 o'clock in the afternoon till 6 o'clock in the evening. Oct. 6th : gra. viiss. at 11 o'clock in the morning ; cephalalgia from 3 till half past 4 in the evening ; not so intense as that of the day before. Oct. 7th : viiss. at 11 o'clock in the morning ; nothing. From the 8th to the 15th of October, nothing.

CASE XI.—*Intermittent Fever*.—D——, political exile, at Cherchel, carried on the trade of a joiner, when in France ; has never been sick for twenty months, that he is in Africa. Attacked with fever Oct. 6th, 1853. The first exacerbation was ushered in by chills ; the following days a continual heat, greater at 5 o'clock in the morning, and lasting until the next morning, with the same intensity. Has, before treatment, twice taken emetics, which produced abundant vomitings, and twice gra. viiss. of sulphate of quinia, on the 10th and 11th of October. Consulted me on the 16th of October ; marked gastric disturbance, which calls for Ipecac gra. xv. and tartar emetic gra. jss., given at 8 o'clock in the morning. At noon, cephalalgia ; at 5 o'clock in the evening, heat, until 7. Remission until midnight ; at midnight, heat and cephalalgia until 5 in the morning.

Oct. 17th : gra. xii. of the sulphate of cinchonia, at 8 o'clock in the morning. At noon, slight cephalalgia, followed by abundant sweat ; at night, no thirst, but constant watchfulness, without chills, nor heat, nor sweat. Oct. 20th : gra. xii. of the sulphate, at 8 o'clock in the morning ; nothing. From the 21st to the 30th of October, nothing.

CASE XII.—*Quotidian Fever*.—6 o'clock in the evening. V——, terrace-maker, has been in Africa four months ; was attacked with dysentery in the month of August, 1853 ; was then ill for eight days ; attacked with quotidian fever on the 24th of October ; he has had six exacerbations, has consulted me only on the 30th of October. Oct. 30th : marked gastric intestinal derangement. Emetic, com-

posed of Ipecac and tartar emetic. Oct. 31st : ʒij. of sulphate of soda, in the morning ; gra. xii. of sulphate of cinchonia, at 2 in the afternoon ; no exacerbation. Nov. 1st : gra. xii. of sulphate, at 2 o'clock in the afternoon ; still no exacerbation. Nov. 2d and 3d : gra. viiiss. of sulphate, at 2 in the afternoon ; nothing. Nov. 4th, 5th, 6th, 7th, and 8th, nothing.

CASE XIII.—*Tertian Fever*.—Days constant, in October. Days not constant, in November. Exacerbations at 6 o'clock in the evening. B——, farmer, was attacked with tertian fever, Sept. 30th. The fever lasted eight days. Took, then, sulphate of quinia, and felt well for three weeks. Attacked with tertian fever Oct. 30th ; did not this time take any sulphate of quinia ; consulted me only on the 4th of November, after two complete exacerbations. Nov. 4th : gastric derangement. Draught composed of Ipec. and tartar emetic. Nov. 5th : the exacerbation is expected at 6 in the morning ; xii. gra. of the sulphate of cinchonia, at 2 o'clock in the morning. The exacerbation comes on at 5 in the morning ; it is not so strong as the preceding day, the cold stage especially ; the period of sweat less prolonged ; it is all over at 9 o'clock in the morning. No cephalalgia. Nov. 6th, nothing. Nov. 7th : gra. xii. at midnight ; no exacerbation. Nov. 9th : gra. xii. at midnight ; nothing. Nov. 15th, 17th, and 19th, no exacerbation.

—*Annuaire de Medecine*, 1854.

Hysterical Hydrophobia. Case reported by Professor BURGGRAEVE, of Gand. Translated for the MONTHLY, by P. F. C. DESLANDES, Bachelier ès lettres.

A man about fifty years old, of a nervous temperament, was brought to the civil hospital of Gand, laboring under characterized fits of hydrophobia. He never had been bitten, and knew not what to attribute his disease to. The fits returned at intervals, nearer and nearer, and in a truly frightful manner. The patient began to experience at the epigastrium a constriction, which soon extended to the pharynx, and rendered deglutition not only difficult, but painful. Hence the very idea of drinking distressed him exceedingly. When they offered him the vessel to quench the thirst that burnt him, he

clung to it with rage, and by dint of violent efforts hardly succeeded in swallowing a few drops of water. The eyes were sparkling and shunned the light ; every shining body increased his agitation. The tongue presented on both sides of the frenum the two small spots observed in ordinary cases of hydrophobia. The patient fell at last into a state of cerebral congestion, which ended in death.

The autopsy did not reveal anything particular about the brain or the meninges, except the injection. The back of the mouth and the pharynx were red, and the latter strangely contracted. At the lower end of the œsophagus existed a ball of lumbricoid worms, some of which had ascended the tube. M. Burggraave thinks these worms have caused the symptoms under which the patient died.* If we analyze these symptoms, says he, we find an hysterical condition carried to its extreme violence. The irritation of the œsophagian nerves extended to the pharynx, and produced there the hysterical ball or constriction. He thinks that if the cause could have been suspected, a vermifuge or a simple emetic might perhaps have saved the patient.

As hydrophobia may to a certain extent be considered as an hysteria, Prof. Burggraave asks himself whether in animals most commonly subject to this disease, as dogs, the cause was not the same, and did not depend on an hysteria, due to the non-satisfaction of the generative wants (*besoin génital*). He bases this hypothesis on this fact of observation, that rabies is rare amongst dogs in the wild state, if not unknown. It is in the domestic state that they contract this disposition, perhaps on account of the disproportionate number of males and females, the latter being less generally kept, on account of the inconveniences they occasion.

However it be, the above case is very interesting as an example of the spontaneous hydrophobia of writers, or rather of symptomatic hydrophobia, connected in all appearances with an hysterical nervous condition.—*Gazette des Hôpitaux*.

Insanity in California. The effect of Gold Digging on the Brain.

The resident Physician* of the Asylum for the Insane of the State of California, in accordance with the requirements of the law, respectfully submits his Annual report to the Board of Trustees, for the information of the Senate, the Assembly, and the people.

* It is regretted that the physician's name is not known to us.

The following statistical tables, with the accompanying explanatory remarks, will afford an accurate exhibit of the condition of the institution ; the number of patients admitted ; the number under treatment during the year ; their social and civil relations ; the number who recovered and were discharged ; their nativity ; sex, age, and the mortality :—

	<i>Total.</i>	<i>Males.</i>	<i>Females.</i>
Number in the Asylum Dec. 31, 1853,	103	93	10
Number admitted to Dec. 31, 1854,	202	179	23
Whole number under treatment during the year 1854,	305	272	33
Number who recovered and were discharged,	150	132	18
Number who died,	21	20	1
Number in the Asylum Dec. 31, 1854,	134	120	14

The institution has thus received, provided for, and had under medical treatment, above three hundred human beings deprived of their reason, incapable of taking care of themselves, many of them dangerous to the peace and good order of society, and a terror to the community.

These have been sent to us in every variety of form and condition, from raving madness and acute delirium to dementia and melancholy, with a slight wandering of the understanding. Some from comfortable and luxurious homes, others from jails and prison ships, habitations unfit for beasts, and, in many instances, ragged, filthy and covered with vermin ; some in the early and curative stages of the disease ; others, old and chronic, past the hope of recovery ; some partially conscious of their condition and desirous of admittance ; others fearful and in dread of confinement and a dungeon ; some in early youth and boyhood ; others in the sear and yellow leaf, even in extreme old age. A large majority, however, were in the prime, the vigor and the meridian of life, when all the feelings and emotions possess the highest energy and the greatest activity. To classify correctly—to establish and maintain some degree of order and harmony among such varying, discordant and dangerous elements,—among such a mass of shattered intellects, required constant watchfulness and anxiety, and demanded unwearied care and attention. And it is with devout gratitude and thankfulness to Him who healeth the sick, the Supreme Ruler of the Universe, that we acknowledge our dependence, in the recovery and restoration of more than one-half of these miserable and unhappy beings.

As the laws of health and disease are constant and invariable, it is necessary, before we draw any general conclusions, to examine a great number of facts, collected at different times and under various

circumstances ; then our deductions are reliable—they are physical truths—fixed facts. Hence the necessity for alarm and anxiety at the rapid increase and progression of mental diseases in this State, at the ratio of one hundred per year, according to the statistics of the last three years. The following table shows the number admitted during every month in each year :—

	1852.	1853.	1854.	Total.
January - - - - -	1	4	8	13
February - - - - -	2	13	15	30
March - - - - -	4	4	15	23
April - - - - -	2	17	17	36
May - - - - -	21	23	16	59
June - - - - -	10	15	15	40
July - - - - -	7	17	23	47
August - - - - -	7	15	20	42
September - - - - -	18	11	19	48
October - - - - -	7	14	14	35
November - - - - -	22	13	24	59
December - - - - -	23	15	16	54
Total, - - - - -	124	160	202	486

The temperature of our climate is so equable, the atmospheric changes so regular and gradual, that they exert but little influence in the production and development of this disease.

During the six hottest months of the dry season, 272 patients were admitted, and 214 during the other months.

The following shows the supposed productive causes of insanity, in three hundred and five cases under treatment during the year :—

MORAL CAUSES—132.

PHYSICAL CAUSES—173.

Mental excitement, - - - -	27	Intemperance in spirits, - - -	42
Domestic affliction, - - - -	21	Intemperance in opium, - - -	2
Pecuniary disappointment, - -	28	Intemperance in tobacco, - -	1
Political disappointment, - - -	2	Masturbation, - - - - -	28
Disappointed affection, - - -	5	Amativeness, - - - - -	3
Desertion of wife, - - - - -	3	Consequence of parturition, - -	10
Desertion of husband, - - - -	3	Suppressed menstruation, - -	2
Desertion of mistress, - - - -	2	Congestive fever, - - - - -	2
Seduction and desertion, - - -	2	Typhoid fever, - - - - -	6
Jealousy, &c., - - - - -	2	Injury of head, - - - - -	6
Grief and fear, - - - - -	5	Epilepsy, - - - - -	10
Sudden wealth, - - - - -	2	Syphilis, - - - - -	4
Religion, &c., - - - - -	3	Coup de soleil, - - - - -	2
Fanaticism, - - - - -	3	Ill health, - - - - -	23
Spiritualism, - - - - -	4	Hereditary, - - - - -	10
Mormonism, - - - - -	1	Unknown, - - - - -	12

The attention of the public, of medical men and legislators, should be constantly directed to the fearful and alarming increase of insanity in this State. The productive causes of this disease should be sought

for and investigated with minute care and attention ; the method of prevention and cure should be pointed out, and, especially, of its curability in the early stages of the disease.

In the whole scope of medical science, more crude, ignorant and mistaken notions are entertained in regard to mental derangement than to any other malady. Esquirol believed that it was one of the attributes which accompany civilization, and steadily increased with every advancing step in luxury, refinement and intellectual progress. In the struggle which is now continually maintained and absolutely necessary to acquire wealth, power or distinction, it requires an immense amount of mental energy, incessant application, and the utmost tension of all the faculties. The brain is in perpetual excitement in every department of business—in every branch of trade and commerce—in science—in the mechanic arts and in agriculture.

Never, since the world was made, has there ever been exhibited such an amount of mental energy, activity and determination. There is no cessation—no rest—no relaxation. The call for mental labor is unceasing and unremitting. There is no reflection—no thought that the regulation of the functions of the brain are as necessary to health as suitable and digestible food for the stomach, or pure and respirable air for the lungs.

That insanity is a corporal disease ; that the brain is the instrument of the mind and organic part of the system ; that it is generated and nourished, becomes diseased and is cured, as any other organ of the body.

The neglect of physical education is another prolific cause of incipient insanity. Parents, teachers and the learned, dilate and dwell upon the importance of cultivating the intellectual faculties, while the natural laws, which govern the physical organization, are wholly neglected. The youthful mind is stimulated to the highest point, while principles of self control, of morality and religion, are unregarded, or deemed of only secondary importance.

This premature and overstrained exercise of the mind, particularly in precocious children, induces disease of the brain and predisposes to insanity.

The physical constitution, the organic structure, the different temperaments and dispositions, are transmissible and propagated from parents to children, and thus the disease becomes connate and hereditary.

In a previous report, it was remarked, that California possessed the ability and capacity for producing, rearing and educating the

most healthy, vigorous and energetic race of men on the earth. The climate is mild and equable, the atmosphere dry and exhilarating, the sun clear and cloudless, and the sky bright and beautiful, for nearly ten months of the year. These impart an elasticity, cheerfulness and hilarity to the mind, and vigor and activity to the body, entirely unknown and inappreciable by the inhabitants of colder and moister countries.

It is incumbent, therefore, upon those who have the guardianship and education of the youth of the land under their control, to see that their physical organizations are cultivated, expanded and trained, as well as their moral sentiments and intellectual faculties. Give them games of strength and feats of agility, active exercise in the open air and pure sunshine ; not constantly confine them to crowded, heated and badly ventilated apartments, moping and worrying over studies they cannot and care not to understand. Develop their physical structures, their muscular systems ; retard their precocious propensities ; then cultivate and expand their cerebral organization and prepare it to manifest the powers of the mind, remembering that the healthy function of every organ is weakened by inactivity, strengthened by exercise, but exhausted by continual application.

Intemperance in the use of liquors, of tobacco, of opium, and in our daily food, exerts an important and dangerous influence on the digestive organs, on the vascular system and the brain, and is a productive cause of many terrible diseases. It increases the determination of blood to the brain, excites some of the organic functions and suppresses others, produces morbid changes in the structure of the brain, and, immediately or remotely, mania and dementia. Our manner of living is not at all conformable to sound dietetic principles. We all live too fast ; consume too many stimulants, eat too heartily, dine too late, and drink too much wine. Our climate requires, and health demands, a less quantity of food, and drinks of a different and milder nature.

Amativeness, the desire for sexual pleasures, although implanted in the human race for the propagation and preservation of the species, is sometimes a productive cause, but frequently a consequence of insanity. In many sensitively organized and vigorous persons, the indulgence of this passion constantly occupies the mind, excites other passions, causes sleepless nights, extravagant reveries, and leads to debasing and demoralizing habits, which enervate the body and destroy the mind. The abuse of this propensity is the source of innumerable evils, and the only remedy is the suggestion and recommen-

dation of Spurzheim: "that of instructing young persons in the terrible and fatal consequences of the improper gratification of this passion, as preferable and better than keeping and permitting them to grow up in a state of ignorance, compromising, and, in the end, destroying their own bodily and mental constitutions, and that of their descendants."

Pecuniary disappointments, reverses of fortune, domestic trouble, sorrow and anguish, melancholy, fear and intense anxiety, disturb the healthy operations of the brain, and, by continued action, produce disease. Individuals thus afflicted should arouse themselves and strive against every feeling of despair and despondency; should seek active employment, industrious toil, manual labor, and ardently engage in the duties of life. Thus a healthy, vigorous physical system will be secured, which is the best prevention and safeguard against the development of nervous and mental disorders. Then with sensible, moderate and rational habits of life, and fortified with pure and correct principles of morality and religion, if trouble and misfortune come, the mind and feelings will not be enfeebled or crushed, but purified and strengthened.

Parturition, child-bearing, is another frequent cause of insanity, and the number of females who have become deranged, after confinement, and during or immediately subsequent to the period of lactation, has nearly doubled within the last year. The reasons are: the peculiar fruitfulness of the sex in this climate—the intense pain of delivery—errors in regimen—indiscretions in exercise and labor—fatigue—anxiety—and the neglect of the moral affections. The lochia are suppressed or diminished—the milk is not secreted—a lacteal metastasis occurs, and mania or melancholy as certainly follows.

These cases appeal, with peculiar sympathy, for the utmost care and attention. They are the weaker sex, and not only liable to all the connate, accidental and hereditary causes of insanity, but they suffer from numerous other complaints, to which the male sex are not exposed.

In consequence of the large accession of females to the population of the State within the past two years, and the increased number who have become insane, and sent to this asylum for care and treatment, it is highly expedient, indeed absolutely necessary, that an additional wing should be immediately erected for their special accommodation, so as to separate them wholly and entirely from the males, and render them secure from observation and intrusion. Then the institution will, in all probability, possess ample space for the accom-

modation of all the insane of both sexes that will have accumulated during the next ten or twenty years.

The annexed table will exhibit the civil condition of those admitted, and the influence of marriage and celibacy on the development of insanity :—

	<i>Males.</i>	<i>Females.</i>	<i>Total</i>
Single, - - - - -	213	4	217
Married, - - - - -	38	18	56
Widowed, - - - - -	21	11	32
Totals,	272	33	305

The most tangible facts connected with the relation of marriage and celibacy to insanity, are displayed by comparing the number of married and unmarried persons in great public hospitals. It is a fact deducible from such statistics, that celibacy tends to augment the number of lunatics, from the restraints which it imposes and the vices to which unmarried persons are more or less exposed. The lives, habits and pursuits of the married are more regular, their social condition and employment more fixed, and they are less subject to excitement and violent emotions. The above table presents some remarkable, interesting and curious results, such as are exhibited by no similar institution in the world.

The following shows the different ages of 305 patients at the time of their admission into the asylum :—

	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
Between 10 and 20 years, - - - - -	21	2	23
" 20 and 30 " - - - - -	142	12	154
" 30 and 40 " - - - - -	68	10	78
" 40 and 50 " - - - - -	26	6	32
" 50 and 60 " - - - - -	9	2	11
" 60 and 70 " - - - - -	4	1	5
" 70 and 80 " - - - - -	2	0	2

The average age was only 32. The extremes 10 and 70 years. Children rarely become insane. They are not capable of maintaining any long or extensive combination of thought. They have few cares and little anxiety, and are not initiated into the troubles and trials of life. Neither are old persons often afflicted with this disease, except with a variety known as senile dementia.

They have passed through all the dangers and frivolities of youth, the illusions of a preceding age, and, feeling their physical infirmities increasing, live calmly, tranquilly, and free from excitement.

It is middle age, the prime and vigor of life, between 20 and 30

years, when the mind possesses the highest activity and energy, that insanity most frequently occurs.

Those counties containing large cities, as San Francisco, Sacramento, and San Joaquin, have sent more than one-half the whole number, while the populous mining counties of El Dorado, Calaveras, Uba and Tuolumne, have been largely represented.

Americans, - - -	188	Germany, - - -	18	Chili, - - -	1
England, - - -	16	Switzerland, - - -	1	Peru, - - -	1
Ireland, - - -	24	Denmark, - - -	1	Mexico, - - -	10
Scotland, - - -	7	Norway, - - -	1	Canada, - - -	2
France, - - -	22	Sweden, - - -	1	Australia, - - -	2
Spain, - - -	2	Russia, - - -	2	China, - - -	1
Portugal, - - -	2	Prussia, - - -	2	Hindustan, - - -	1
Italy, - - -	5	Poland, - - -	2		

This table shows the character of our population, a perfect conglomeration of different peoples and nations, without fusion or assimilation. Americans from every State in the Union, foreigners from nearly every government in Europe, from South America, from Asia, and from the islands of the Pacific.

We have also admitted nine Africans—six males and three females—four of whom have been discharged. One died, and four yet remain in the Asylum.

Our table of mortality is somewhat greater than last year, owing to a variety of causes, but principally from the admission of persons not proper subjects for an asylum for the insane, such as mania from typhoid fever, *mania a potu*, and epileptics. Thus, three deaths occurred from the first, two from the second, and four from the last disease; while, out of one hundred and three cases of acute mania, the most violent form of insanity, only two cases proved fatal.

The general health of the establishment has been good. No epidemic—no acute disease of any kind, unconnected with the brain, has prevailed to any extent.

No suicide has occurred within the past year, nor, indeed, at any time since the organization of the institution. These cases of self-destruction have become so numerous lately—having swept over the State almost like an epidemic—that the Asylum is considered exceedingly fortunate that nothing of the kind has happened within its walls.

Several homicidal cases have also been under treatment, yet no accident of a serious or dangerous character has taken place.

PART VI.—EDITORIAL AND MISCELLANEOUS.*Report of the Medical Board of the New York State Emigrants' Hospital, for the Year 1854.*

From this Report the following is condensed :

During the year 15,861 patients were treated in the wards of the Hospital. In the Refuge Department 13,806 cases of disease received medical treatment. The whole number of cases treated in the Institution amounted to 29,667. The percentage of mortality on the whole number of cases was 54.

In the Lying-in Department 894 women were admitted, including some just after confinement, 701 children were born, 35 women died, and there were 19 cases of puerperal fever, under this term being enumerated metritis, peritonitis, phlebitis uteri, &c. There were 13 cases of Instrumental delivery, 11 by forceps, and 2 by craniotomy.

In the Surgical Department, the variety of diseases has been great and interesting ; among the many capital and successful operations may be mentioned the excision of the arm at the shoulder joint, for a tumor produced by cancerous degeneration of the bone, in size the largest on record ; and the exsection in two patients of the entire radius in one case, and of the entire ulna in another, for extensive disease of these bones, the hands having been thus saved, and their usefulness preserved. During the last three years anæsthetics have been administered when indispensable, in upward of 1000 cases, and in no instance has an accident occurred, or the least bad effect followed their exhibition.

In the Surgical Department the whole number of cases treated during the year was 4,574, the number of cases cured and discharged 4,079, and the number of deaths 89, or less than 2 per cent. on the number of cases treated.

It is deserving of remark that the mortality among the surgical patients of the Hospital is lower than that of the population of the city, including both sick and well.

The cases of death were, for the most part, incurables, or children admitted to the Hospital in a state of marasmus, existing as a complication of some surgical malady.

HENRY G. COX, M.D., President Medical Board, and Physician-in-Chief ; JOHN MURRAY CARNOCHAN, M.D., Surgeon-in-Chief ; ERNEST SCHILLING, M.D. ; SIMON HABEL, M.D. ; GEORGE FORD, M.D. ; T. ADDIS EMMET, M.D., Secretary to Medical Board.

BLACKWELL'S ISLAND HOSPITAL.—In our last number we alluded to the Annual Report of Dr. Sanger, the Resident Physician, and made some remarks in reference to the importance of changing the name of the Penitentiary Hospital. This is not the only reform which is needed in these Institutions. There are now under the charge of the Resident Physician, a male and female Hospital at the Alms House, a male and female Hospital at the Work House and the Penitentiary Hospital.

The Board of Ten Governors, at their meeting April 17, 1855, passed the following Resolution :—

Resolved, That the Resident Physician be requested to give to this Board, in writing, his opinion as to whether the departments are properly served, as regards the sick inmates, or whether they could be better attended to in one building, to be designated the Hospital of Blackwell's Island ; also as to the economy of the present mode, or to a consolidation of the sick ; and whether a Hospital can be organized so as to classify the various departments, and if under such organization, for certain complaints pay Boarders can be taken.

These interrogatories by the Board, have been answered by Dr. Sanger, in a Report, which has since been published. We have space but for a few extracts from his reply :—

It is, therefore, my decided opinion that the sick inmates of these Institutions, excepting the court prisoners, the insane, and those suffering from small pox, should be treated in one general Hospital, of sufficient size to admit of the most perfect classification of patients, as well as of diseases. I believe that your Alms House and Work House, as now organized, are not proper places for the treatment of the sick. I believe that the sick and well should be separate, and that the former should not be treated with, or in close proximity to, the latter. I hold this to be good medical, as well as sound common sense. All persons sick enough to be confined to bed, or from the nature of their complaints unable to work, and at the same time fit subjects for medical treatment, should be separated from those competent to labor, transferred from the Institutions intended for the well, and sent to the general Hospital : there to remain until cured, or enabled to resume their duties at the several Institutions whence they came. Small Hospital wards should be retained at each of those places, for the treatment of any taken suddenly ill, and the temporary treatment of accidents, and those sick for only a day or two.

Dr. Sanger also shows, most conclusively, that the consolidation of the sick into one general Hospital, would be altogether more econom-

ical than the present arrangement. In relation to the last point of the enquiry contained in the Resolution, Dr. Sanger says:—

There would be no difficulty in so organizing a Hospital as to meet the requirements of the various Institutions, but to accomplish this satisfactorily, it should be entirely distinct and independent of all; situated in that respect, as are Bellevue Hospital and the Lunatic Asylum. The most fruitful source of difficulty between the officers of the various Institutions, to my certain knowledge, during the past ten years, has been the clashing of *medical* and *non-medical* rule. The regulations governing the sick and well, are constantly interfering with each other.

Cut loose your medical departments from the surveillance and interference of non-medical men, and let them swing out on the broad sea of self-reliance and responsibility, give them a chance to be governed by the only law that should rule them, and you will be surprised at the giant strides they will make on their march to respectability and usefulness. Prevent ignorant interference with your Physicians and Surgeons; direct that your sick be governed by the laws that should govern the sick, and the well by the laws which should govern those in health. * * * * *

These small Hospitals, as now situated and conducted, are no credit to you,—of no use or interest to the medical profession at large,—and (if not now) soon will be nuisances to the Institutions in which they are located. In my opinion three years will not pass by, ere you will be compelled by the force of numbers, to turn these Hospitals out of doors in order to make room for the well, or those able to work.

Your Honorable Board receives, during each year, the gratuitous and willing services of a large number of the first Physicians and Surgeons in the city. Is it too much to ask of you, in return for their services, oftentimes rendered when you are enjoying yourselves in your comfortable beds, that you will, by grouping these patients, aid them in their duties, and increase their field of observation and experience?

We sincerely hope these bold efforts of Dr. Sanger, to effect such important reforms in these Institutions, will be successful.

BLANCARD'S PILLS OF THE IODIDE OF IRON.—To these Pills we have before alluded. Since that time we have had occasion to make repeated trials of them, and have been quite satisfied with them. It is not necessary for us to speak of the many indications filled by this preparation of iron. Almost every practitioner has constant occasion for it, and in our most common pharmaceutical preparation, the syrup, it is daily used in great quantities, though the dose is so small. Many attempts have been made to administer it in pills, but from its

deliquescent propensities this has not hitherto been accomplished. Blancard appears to have found a way to accomplish this by enveloping the iodide in "porphorized iron" and balsam of tolu. What the process is, we do not know, but the indorsement of the pills by the French Academy of Medicine, is sufficient guarantee that the preparation is a good and legitimate one. Neither should they come under the suspicion of being an empirical preparation, as one at first fears all "pills ready made" are. Some of these pills were sent to us by the agents for this city, MM. Fongera, for trial, and they were, as we have said, quite satisfactory to us. A portion distributed to our friends, gave equal satisfaction to them, and have caused an increased demand for the article. This we say, that our readers may avail themselves of the preparation, if they have occasion for it.

EXPLANATORY.—We very willingly insert the following letter from Dr. Beadle, which fully explains itself:—

42 Bleecker street, NEW YORK, May 12th, 1855.

Prof. E. H. PARKER, Editor *American Medical Monthly* :

DEAR SIR,—Permit me to correct a statement made in an article which appeared in the April number of your journal, entitled "A nut for the Academy."

Undoubtedly it is in consequence of a false impression having been made on your mind as to the action taken on the nomination of Dr. Tuthill, to Resident Fellowship of the New York Academy of Medicine, that injustice has been done to the Committee on Admissions of said body. This Committee, for the several years that I have had the honor of belonging to it, has acted on all nominations with as much promptness as circumstances would allow ; and in the instance now referred to, no considerable delay occurred in acting on the nomination, after the receipt of Dr. Tuthill's testimonials, and he was not recommended to the Academy by the Committee, simply because Art. III. of the Constitution says that "Resident Fellows shall be regular practitioners of Medicine and Surgery, in the city of New York," and Dr. Tuthill informed the chairman of the Committee, when told of this provision of the Constitution, that he was not at all engaged in the practice of his profession, but was employed in editorial duties in connection with the "New York Daily Times."

With this statement of the facts in the case, will you see that the matter is put right, and thereby oblige, very

Respectfully yours,

E. L. BEADLE,
Chairman of Committee on Admissions.

